ASSESS THE KNOWLEDGE ON SELF CARE MANAGEMENT AND IMPACT OF SICKNESS AMONG PATIENTS ON HEMODIALYSIS

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL 2011

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APPROVED BY THE DISSERTATION COMMITTEE ON:

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PROFESSOR IN NURSING :

_____

RESEARCH Dr. Nalini Jayavanth Santha, M.Sc., (N) Ph.D.,
Principal.
Sacred Heart Nursing College, Madurai.

CLINICAL SPECIALITY :

_____

EXPERT

Prof. Chandrakala, M.Sc., (N), Ph.D.,
Viceprincipal
Sacred Heart Nursing College, Madurai.

MEDICAL EXPERT :

_____

Dr. M. Sivakumar. MD,DM(Neph)
Nephrologist,
Kidney center,Madurai.

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CERTIFICATE

This is the bonafide work of **Ms.Haripriya.S**, M.Sc. (N) II Year student from Sacred Heart Nursing College, Ultra Trust, Madurai. Submitted in partial fulfillment for the Degree of Master of Science in Nursing, under Tamil Nadu Dr.M.G.R. Medical University, Chennai

Dr. Nalini Jeyavanth Santha, M.Sc.,(N),Ph.D.,

Principal

Sacred Heart Nursing College,

Ultra Trust

Madurai -625020

Place:

Date:

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"Therefore by him let us continually offer the sacrifice of praise to God, that is, the fruit of our lips, giving thanks to his name."

-Hebrews, 13:15

"Every day, the sun lights up a world where all things are possible. Stand up, find your center, then take the first step on your journey of self-discovery."

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ABSTRACT

The present project is **"A study to assess the knowledge on self care management and impact of sickness among patient on hemodialysis from selected hospital at, Madurai".**

An in depth review of literature was collected for the study. The conceptual framework adopted for this study was Hilice Irwin Rosen Stocks health belief model. Descriptive method and survey approach were used to determine the level of knowledge in self care management and impact of sickness among patients with hemodialysis. Non experimental descriptive design was used in this study. . Samples were End Stage Renal Disease patients with hemodialysis, who fit into the inclusion criteria. Sample size was 100.Structured knowledge questionnaire was used to assess the knowledge regarding self care management and Modified sickness impact profile was used to assess the impact of sickness among patients with hemodialysis. The study found out that there is a positive relationship between levels of knowledge and impact of sickness among patient with hemodialysis. There was a significant association between knowledge on self care management and selected demographic variables (education, occupation, monthly income)among patient with hemodialysis.There was an association between impact of sickness and selecteddemographic variables (age, monthly income, education, duration of hemodialysis)among patients with hemodialysis).

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CHAPTER I

INTRODUCTION

Background of the Study

Chronic or irreversible renal failure is a progressive reduction of functioning renal tissue such that the remaining kidney mass can no longer maintain the body's internal environment. (Joyce and Black 2005)

The last stage of kidney failure (end stage renal disease [ESRD]) occurs when the glomerular filtration rate is less than 15 ml per minute .At this point, renal replacement (dialysis or transplantation) is required. (Sharon Mantik Lewis 2006)

In the United States at the end of 2007, over 345,000 individuals with ESRD were being treated for chronic kidney disease. Of these more than 245,000 were dialysis patients and more than 100,000 had a functioning kidney transplant. Over the past 5 years, the number of new patients with kidney failure has averaged about 80,000 annually. Each year about 70,000people die from causes related to renal failure.(Lewis 2006)

A number of people diagnosed with chronic kidney disease and requiring dialysis treatment is increasing in India .This is due in part to an aging population and increasing rates of diabetes and hypertension, both of which contribute the development of kidney failure. (Susan and Logan 2006)

The reported Annual incidence from developing countries varies from 34-240 per million population (pmp), which is in contrast to an incidence between 98 and 198 per million population per year reported from ESRD registries maintained in the developed countries. It is likely to be higher, with poor socio-economic status predisposing the general population to a number of infection related

glomerulonephritis and a relatively higher incidence of nephrolithiasis. A higher incidence of ESRD has been noted in Asian of Indian origin in Birmingham, who comprise 14%of the population but 25% of dialysis patients and
30% of patients on the renal transplant waiting list; this is another pointer to the higher incidence of ESRD in the population (www.kidneypatientguide.com 18th may 2000).

The goal of management is to maintain kidney function and homeostasis as long as possible. Treatment modalities include nutritional management, pharmacological management, dialysis, renal transplantation. (Suzanne Smelter 2004)

Dialysis is the movement of fluid and molecules across a semi permeable membrane from one compartment to another. (C.F.Gutch 2005)

There are two types of dialysis-peritoneal dialysis and hemodialysis. In hemodialysis it removes waste product from the blood by passing it out of the body, through a filtering system (dialyzer) and returning it, cleaned, to the body. While in the filtering system, the blood flows through tubes made of membrane that allows the waste product to pass out throw it. The waste products pass throw the membrane in to a dialysis solution (dialysate) ,then out of the machine. The “clean” blood is carried on through and returned safely in to the body. It takes about 4 hours to complete a good session of hemodialysis, which need to be done 3 times.

The patient on dialysis has a prescribed diet to prevent catabolism and control the level of serum uremic products that accumulate between dialysis treatments. Typically, this daily diet includes 60 grams of protein,2 grams of sodium, 2 grams of potassium, and 1,000 ml of water.(www.kidney patient guide.com.18th may 2000).

Fistula and graft sites need to be cleaned and assessed daily. Watch for changes in the skin's appearance including: redness, bruising, localized swelling, bulging, or pustules. The area around the site should be assessed for swelling, temperature, numbness, weakness, or pain. Become familiar with the feel of the pulse within the fistula or graft. Changes, either weakening or becoming bounding, may indicate complications. Blood draws and blood pressure monitoring should not be performed on the extremity housing a fistula or graft (American society of registered nurse 2008).

Infections are common in patients on dialysis and are related to inadequate dialysis, malnutrition, and frequent use of blood transfusion to correct anaemia. Together uremic complications and infection accounts for 57% of all deaths in Indian patients on dialysis, with less 30%of deaths due to ischemic heart disease. The prevalence of hepatitis B and C virus infection varies between 4-12% and 4-16%, respectively, in Indian patients on dialysis and can lead to long term sequelae in the post transplant period.(Welch,Parkins and Bajpai 2003)

Overall, since dialysis is designed to take the place of the kidneys, most patients say they feel better after a treatment. However, some complications can occur. Due to the large amount of fluid pulled from the body during hemodialysis, patients can have problems with low blood pressure and nausea during treatment. Extreme fatigue is common, so it may be necessary to rest for a few hours during and after treatment. Some common side effects also include itchy skin, hair loss, restless legs and leg cramps. Most of these are usually easily treated with over-the- counter medication, make sure to get advisement from a doctor first (Karen Holt 2006).

Health is on one the hand a highly personnel responsibility and on other hand a major public concern. Self care is defined as"those health generating activities that are undertaken by the person themselves". Self care activities comprise observant of simple rules of behaviour and carrying out other specific disease prevention measures. (Stephen.Z.Fraden (2003).

Self care management is a newer strategy for client with End Stage Renal Disease. They have explained that past researches suggests that patient's self care management behaviour and knowledge about their condition/treatment may impact functioning or well being.(Roberta Braun and Curtin 2004)

Self care management encompasses compliance and adherence and advocates clients being partners in their treatment, having the knowledge and skill to care for themselves, making decision about their own care (Evan,Wangler and Welch 2004).

Serious psychosocial impairment is common sequela of maintenance hemodialysis, especially for long term patients (Warren Procci 2004).There is a tendency for depression and anxiety found more frequently among hemodialysis patients. Therefore, patients undergoing hemodialysis treatment should also be evaluated psychologically and treatment should be initiated if necessary.(Fusun Erdenen 2007).

Nurses role in dialysis include patient monitoring, administration of sedation under the supervision of the nephrologists, assisting on procedures and recovery, and discharge of patient. This nurse also serve as a liaison with the dialysis staff, answering questions, providing information regarding the substance of the patient's procedure, and involving the interventionalist where needed. (Donna Merril and Arif Asif 2004).

Although nurses are responsible for the direct care of patients undergoing dialysis, technical staff performs much of this care under the nurses's supervision. Patient and family education and ongoing reinforcement and support for self-care are more critical services provided by the nurse.In addition, the nurse is responsible for ongoing assessment of the Patient's physical, emotional or social condition indicates the need.(Judith.Z.Kallenbach 2005)

NEED AND SIGNIFICANCE

Hemodialysis and peritoneal dialysis have been around since the mid 1940's. It began to be regularly used in 1960 and is now a standard treatment all around the world. Thousands of patients have been helped by these treatments. It is a life saving procedure.(American society of registered nurse,2008).

In Medicine, dialysis (from Greek "dialusis", meaning dissolution, "dia", meaning through, and "lysis", meaning loosening) is primarily used to provide renal replacement for lost kidney function in people with renal failure. Dialysis may be used for those with an acute disturbance in kidney function (acute kidney injury), or for those with progressive but chronically worsening kidney function–a state known as chronic kidney disease stage 5 (previously chronic renal failure or end-stage kidney disease). The latter form may develop over months or years, but in contrast to acute kidney injury is not usually reversible, and dialysis is regarded as a "holding measure" until a renal transplant can be performed, or sometimes as the only supportive measure in those for whom a transplant would be inappropriate. (www.eikipedia.com,June 2007)

The number of patients undergoing hemodialysis is drastically increasing now a day. Bearing all these pain, they forced to live in an economic and socially productive life. A study conducted in correlation with Life Option Rehabilitation Advisory Committee (LORAC) among 450 patients in different settings reveals an increased knowledge may enhance a progress in self care, treatment effectiveness of patients with chronic kidney disease. (Roberta. Braun Curtin 2006).

Recent qualitative researches have suggested that hemodialysis patients ability to self management aspects of their disease and its treatment may be positively associated with their overall functioning and well being (Curtin, Mapes, Petillo,and Oberley 2002).

The positive impact of self management programme on patient outcomes, including improved medication use, improved communication with physicians, and improved health status variables has also been documented (Clark and Northwehr 2001) . Even more importantly, a significant relationship between participation in a pre-dialysis education programme and improved functioning and well being has been observed (Klang ,Bjorvell, Berglandand Clyne 2001).Taken together, this body of research seems to support the notion that patients maintained on hemodialysis who-learned about their disease and its treatment, and who successfully self manage atleast some aspects of their own health care, may experience improved functioning and well being and increased overall quality of life, while simultaneously experiencing decreased risk for hospitalization and mortality (Mapes, Lorwin 2005).

Self management has been defined as the positive effort of patients to oversee and participate in their own care in order to optimize health, prevent complications, control symptoms, marshal medical resources, and optimize the intrusion of the

disease in to their preferred lifestyle. They hypothesized that self-management strategies of the cooperative style, including patient suggestion to providers regarding treatment, patient self care during hemodialysis, active information seeking by patients, and shared responsibility in care between patient and their caregivers, would be positively associated with functioning and well being (Curtin and Mapes 2002).

A study conducted to clarify the concept: 'adequate self-care of patients treated with hemodialysis (HD) or continuous ambulatory peritoneal dialysis (CAPD)'. Adequate self-care behaviours for preventing and regulating pathological processes and related disabilities e.g. following dialysis and medication prescriptions as well as diet and fluid regimens are well documented. Adequate self-care behaviours aimed to promote personal well-being or development are less well documented. The authors suggested that use of the concept of adequate self-care would enlarge the scope of the disease management of HD and CAPD patients. Further research should focus on systematically investigating self-care activities of dialysed patients (Regula Ricka 2002)

This review was a main source of interest to the researcher to assess the knowledge of self care management and impact of sickness among patients undergoing hemodialysis.

STATEMENT OF THE PROBLEM

A study to assess the knowledge on self care management and impact of sickness among patient on hemodialysis from selected hospital at, Madurai.

OBJECTIVE

1. To determine the knowledge regarding self care management among patients with hemodialysis.
2. To describe the impact of sickness among patients with hemodialysis.
3. To find out the relationship between knowledge and impact of sickness among patients with hemodialysis.
4. To find out association between knowledge with selected demographic variables (age, sex, education, occupation, living locality, monthly income, type of family, presence of diabetes and hypertension, duration of hemodialysis) of patient with hemodialysis.
5. To find out association between impact of sickness with selected demographic variables (age, sex, educational status, occupation, monthly income, type of family, living locality, presence of diabetes and hypertension, duration of hemodialysis) of patients with hemodialysis.

OPERATIONAL DEFINITION

Knowledge: - It refers to a body of information. In this study it refers to the respondent's written responses regarding self management during hemodialysis. This was measured by the samples response to the structured knowledge questionnaire.

Self care management:- It has been defined as the positive effort of patients to oversee and participate in their health care in order to optimize health, prevent

complication, control the symptoms and minimize the intrusion of the disease of the

disease in to their preferred life style. In this study it refers to the patient's ability to manage himself / herself on diet therapy, fluid restriction, fistula care and medication during the hemodialysis period.

Impact of sickness:- It is a behaviourally based measure of sickness related dysfunction. In this study it refers to the problem experienced by the patients because of the disease process and hemodialysis. It was measured by the score obtained by the subjects in the Modified Sickness Impact Profile (SIP).

Patient on hemodialysis:- Hemodialysis is a procedure which removes waste products from the blood by passing it out of the body, through a filtering system (dialyzer) and returning it, cleaned, to the body. In this study it refers to the patients with end stage renal disease who were on hemodialysis during the data collection period from selected hospital.

HYPOTHESES:-

H_1. There will be a significant positive relationship between knowledge and impact of sickness among patient with hemodialysis.

H_2. There will be a significant relationship between knowledge with selected demographic variables (age, sex, educational status, occupation, monthly income, type of family, living locality, family history of renal disease, presence of diabetes and hypertension, duration of hemodialysis) among patient with hemodialysis.

H_3. There will be a significant relationship between impact of sickness with selected demographic variables (age, sex, educational status, monthly income, living locality,

family history of renal disease, presence of diabetes and hypertension, duration of hemodialysis) of patients with hemodialysis.

ASSUMPTION:-

1. The evidence of disease in an individual arouses interest to know about the disease.
2. As the knowledge increases, patient will do better self care management.
3. Patient with adequate self care practice will experience only less degree of disabilities.

DELIMITATION:-

1. The study was conducted only on patients with hemodialysis at Madurai Kidney centre.
2. The study period was limited to six weeks.

PROJECTED OUTCOME:-

This study was proposed to assess the level of knowledge regarding self care management and its impact of sickness among patient with hemodialysis. The findings of the study reveals the impact of knowledge level on sickness. The study report is expected to create an awareness in hemodialysis patients about the importance of adequate self care practice.

CONCEPTUAL FRAMEWORK

The present study is based on Hilice Irwin Stocks (1974) Health Belief Model to develop guide and to generate testable hypothesis.

Health behaviour is defined as the activity under taken by a person who believes him or himself to be healthy for the purpose of preventing health problem.

Within the framework, human behaviour is seen as being dependent upon two primary variables.

1. The value placed by a person upon a particular outcome.
2. The person's belief that a given action will result in that outcome.

Accordingly health belief model suggests that preventive action taken by an individual to avoid disease is due to that particular individual's perception of occurrence of the disease that would have atleast some severe personal implications.

The assumption in this model is that by taking particular action, susceptibility to illness is avoided. And if the disease had occurred, severity would be reduced. The perception of the thread posed by disease is affected by modifying. As show in figure no.1. These factors are demographic structural variables. These variables can influence both perception and the corresponding cues to instigate action.

"Action cues are required" says Rosenstocks because while an individual may perceive that a given action will be effective in reducing the treat of disease , that action may not be taken if it is further defined as too expensive, or painful or too inconvenient or perhaps too traumatic.

So despite recognition that action is necessary and presence of energy to take that action, a person may still not be sufficiently motivated to do that action. It also involves a weighing of the perceived benefits of action contrasted to the perceived barriers. Therefore Rosenstocks believed that stimulus in the form of an action is required to "trigger" the appropriate behaviours, such a stimulus could be either internal(perception of bodily state) or external (experience, inservice education, interpersonal interaction, mass media etc).

This model is based on three component:-

a. Perceived susceptibility to disease
b. Perceived seriousness of disease and
c. Perceived values of action.

a. Perceived susceptibility to disease is an individual's belief that she either will or will not contact disease. It may range from being afraid of contacting disease to complete clinical illness that certain behaviour will result in illness.

b. Perceived seriousness of disease involves two factors:-

i. Seriousness of disease and related illness and
ii. Perceived effect on the personal life style.

The component is based on how much the patient know about disease and related self care can result in change in the health behaviour. If the patient believes that adequate self care activities leads to less sickness related impact, the patient is more likely to follow adequate self care activities.

Perceived susceptibility to disease and perceived seriousness of disease are part of belief about the treat of disease.

c. Perceived value of action is concerned with how much effectively the individual believes preventive measures that will be effective in preventive the disease.

The patient perception of the cost and unpleasant effect of not performing the health behaviour based on this component. If the patient believes that following correct self care action will prevent sickness related impact, then with good effort she can practice correct self care activities.

Summary

This chapter has the introduction, need for the study, statement of the problem, objectives of the study, hypotheses, assumption, delimitations, operational definition and conceptual frame work of the study.

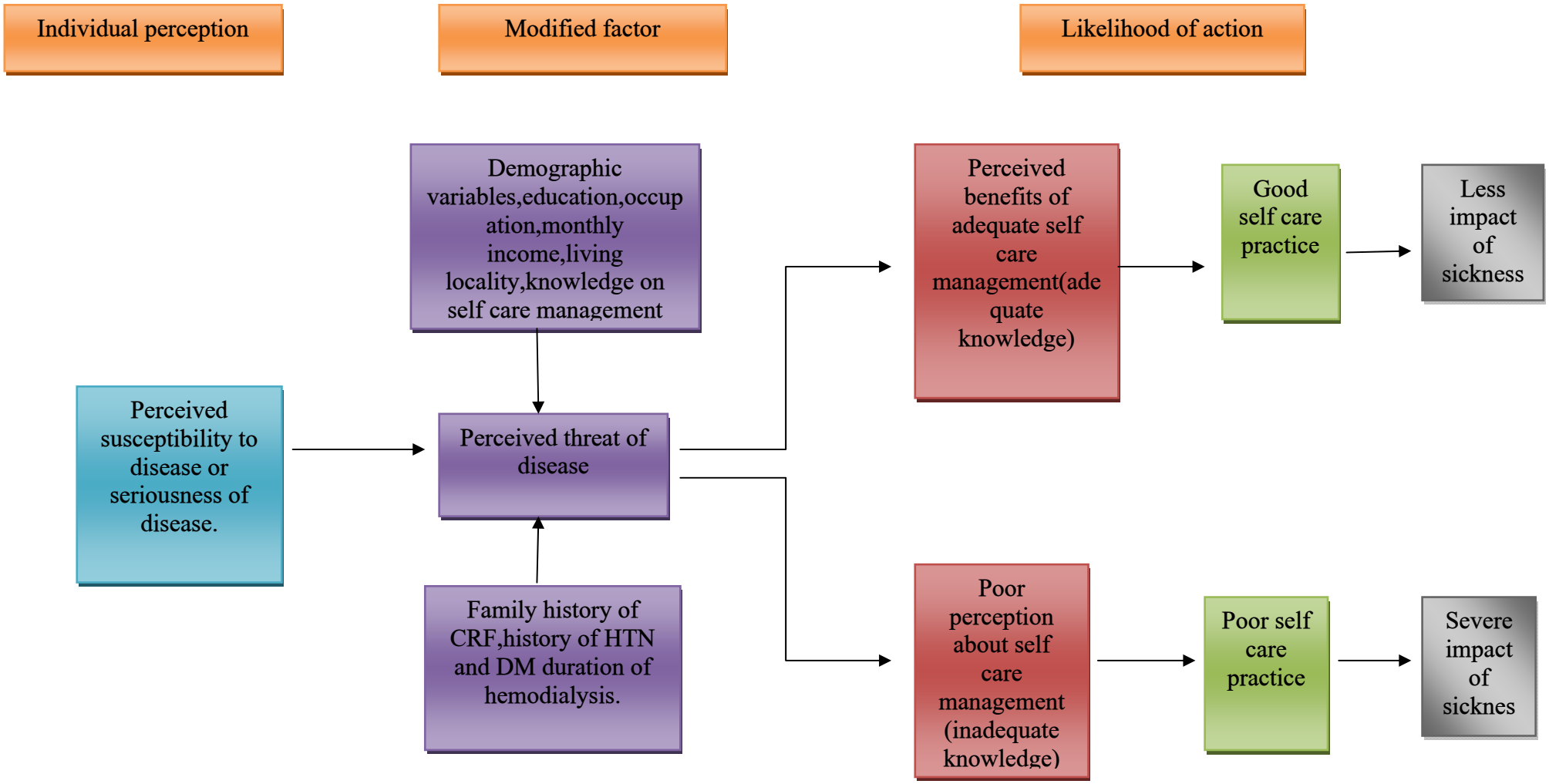

FIGURE: 1 – CONCEPTUAL FRAME WORK BASED ON HILICE IRWIN STOCKS (1974) HEALTH BELIEF MODEL

CHAPTER II

REVIEW OF LITERATURE

Researcher almost never conducts a study in an intellectual vacuum. Their studies are undertaken within the content of an existing base of knowledge. Researcher generally, undertake a literature review to familiarize them about the topic under study.

(Polit and Hunngler 2005)

Related literature was reviewed in depth, so as to broaden the researcher's understanding of the selected problem. The idea was to develop a deeper insight in to the problem area and to identify knowledge level and degrees of disability among patients undergoing hemodialysis. An attempt has been made to review and discuss the research literature and non research literature and their findings related to the present study.

The literature review is presented under the following headings.

1. Studies and literature related to knowledge of patient regarding self care management during hemodialysis.
2. Studies and literature related to impact of sickness among hemodialysis patients.
3. Studies and literature related to Role of nurse in caring patient with hemodialysis.

Studies and literature related to knowledge of patient regarding self care management during hemodialysis

Curtin and Sitter (2001) have done a study on "Self management, Knowledge, and Functioning and Well Being of Patients on hemodialysis" in USA. In this cross sectional study, measures of self management and knowledge were

administered to 372 patients on hemodialysis from 17 dialysis facilities. Findings suggest that the patients studied were low self-managers. The most commonly used self management strategies were the cooperative/participatory activities of self care during hemodialysis and shared responsibility in care. Multiple linear regression showed self-care during hemodialysis to be positively associated with physical functioning, measured by the SF-12 Physical summary (PCS -12) scale. Age, diabetes and 2 protective/proactive strategies(selective symptom management and assertive self advocacy) were negatively associated with the PCS -12.Selective symptom management was also negatively associated with mental health functioning measured by the SF-12.Mental component summary (MCS-12),where as patient knowledge of kidney disease/treatment was positively associated with the MCS-12.

Curtin and Mapes (2000) had done a study on ”Health care management strategies of long term dialysis survivors” in USA.This qualitative, exploratory – descriptive study describes self-management strategies of long term survivors of dialysis. Data were collected via long, semi-structured interview with 18 individuals, 10 males and 8 females, who had been on dialysis for more than 15 years. Respondents ranged in age from 38-63 years. Interviews were audio recorded, and verbatim transcriptions of interviews were analysed according to content analytic procedure, with movement from specific to general. Six broad patient self management strategies were identified: impression management, selective symptom report/management, vigilant oversight of care, self-proposal of treatment, active self advocacy, and independent adoption of advocacy, and independent adoption of treatment/use of alternative therapies.

Clients with end stage renal disease (ESRD) require continual care. Daily self-care includes managing a complex treatment regimen of dietary restriction, fluid limitations, medications, and vascular access care. This day to day care is the responsibility of the client (Richard and Cleo 2006).

Kimberly Smith, Melinda Coston (2009) had done a study on "Patient perspective on fluid management in chronic hemodialysis" in two outpatient hemodialysis centres in Nashville. In this semi structured focus group 19 patients were asked a series of open-ended questions to encourage discussion about the management of fluid restriction within the broad categories of general knowledge, source or barrier, believes and attitudes, self care efficacy, emotion, and self-care skills. Psychological factors were the most common barriers to fluid restriction adherence, predominantly involving lack of motivation. Knowledge was the most discussed facilitator with accurate self assessment, positive psychological factors, and supportive social contacts also paying a role.

Norma and Wiser MS(2004) done a study on "The effect of a group nutrition education programme on nutrition knowledge, nutrition status, and quality of life in hemodialysis patient" in two free standing dialysis centers USA. The aim was to assess the effect of a group nutrition education programme on nutrition knowledge, quality of life in hemodialysis patient. A 5 months study of 87 patients on hemodialysis receiving group nutrition education compared to a control group of hemodialysis patients receiving individualized monthly nutrition counselling. Pre-study and post study participants completed a questionnaire that assessed nutrition knowledge and solicited demographic data and the medical outcomes. The GNEP teaching and support programme consisted of five monthly 45 sessions conducte d with 9 groups of 7-10 hemodialysis patients while undergoing their hemodialysis

treatment .Nutrition knowledge scores improved in the GNEP cohort, but not at a statistically significant level. The GNEP had significantly improved composite score on the SF-36 from pre assessment to post assessment. There were no significant differences between the control and GNEP cohort in any of the parameters measured.

Rantanen Kallio, Johansoon and Salantera (2008) had done a study on "Knowledge expectation of patient on dialysis treatment". This study describes the knowledge expectations of patients on dialysis treatment (n = 47) and selected background variables. The results indicated that patients expressed moderate knowledge expectations. Most important were the biophysiological, functional, and ethical dimensions of knowledge. The least important were the social and experiential dimensions of knowledge. Patients' age, employment status, and length of dialysis were positively correlated with knowledge of expectations.

Julie Wright and Kenneth Wallston (2009) have done a study on "Development and result of a kidney disease knowledge survey given to patients with Chronic Kidney Disease" in Nashville. They developed and examined the results of a survey to characterize kidney disease knowledge and selected 401 adult patients with CKD (stages 1-5) attending a nephrology clinic from April-October 2009. They calculated survey reliability using the Kuder-Richardson-20 coefficient and established construct validity by testing a priori hypotheses of associations between survey results and patient characteristics. They descriptively analyzed survey responses and applied linear regression analyses to evaluate associations with patient characteristics. Health literacy was measured using the Rapid Estimate of Adult Literacy in Medicine. Participants' median age was 58 (25th-75th percentile, 46-68) years, 83% were white, 18% had limited literacy, and 77% had CKD stages 3-5. The 28-question knowledge survey had good reliability (Kuder-Richardson-20 coefficient

= 0.72), and mean knowledge score was 66% ± 15% (SD). In support of the construct validity of our knowledge survey, bivariate analysis shows that scores were associated with age (β = −0.01/10 years; 95% CI, −0.02 to −0.005; *P* = 0.003), formal education (β = 0.09; 95% CI, 0.03-0.15; *P* = 0.004), health literacy (β = 0.06; 95% CI, 0.03-0.10; *P* = 0.001), kidney education class participation (β = 0.05; 95% CI, 0.01-0.09; *P* = 0.009), knowing someone else with CKD (β = 0.05; 95% CI, 0.02-0.08; *P* = 0.001), and awareness of one's own CKD diagnosis For patients with CKD, this Kidney Knowledge Survey (KiKS) is reliable and valid and identifies areas of and risk factors for poor kidney knowledge. Further study is needed to determine the impact of CKD knowledge on self-care behaviors and clinical outcome.

Studies and literature related to Impact of Sickness among hemodialysis patients

Glary Hart and Roger Evan (2009) assessed" The functional status of ESRD patients by the Sickness Impact Profile". In Washington. This study described and compared the perceived sickness related behavioural dysfunction of 859 end stage renal disease (ESRD) patients from 11 centers according to treatment modality via the Sickness Impact Profile(SIP). The unadjusted functional status of ESRD patients differed significantly by treatment modality. Transplantation patients were least functionally limited followed in order by home dialysis and hemodialysis. The largest overall differences were for the sleep and rest, work, recreation and past time and home management in terms of Sickness Impact Profile categories. Regression analysis revealed that many of the large observed intermodality differences in functional status may have resulted from casemix variations (eg:age, co-morbidity differences).

Margin and Thompson (2002), conducted a study on "Dialysis impact on quality of life of end stage renal disease patients" in UK. In this study, 24 adequately

dialysed and 24 inadequately dialysed renal patients were compared on self report measures of quality of life (Kidney disease quality of life instrument and Hospital anxiety and depression scale).On two sub scale measures of HDQOL instrument, role-physical and pain are against the predicted direction, inadequately dialysed patients were found to have a better quality of life than adequately dialysed patients. The premise that better dialysis quality is associated with a greater quality of life was not supported.

Adrican.Covic and Paul Gusbeth-Tatomir(2005) had done a study on "Illness representation and Quality of life score in Hemodialysis patients" in London. In this cross sectional study, examined the impact of illness representation on quality of life of hemodialysis patients and the influence of hemodialysis duration on this relationship.82 clinically stable hemodialysis patients completed Short Form-36 health survey. Illness representations were assessed by a structured interview containing questions derived from the Revised Illness Perception Questionnaire. The result indicates a higher personal control is associated with a lower emotional response and a better understanding of the disease. However, the perceived negative consequences of the disease upon patient's personal lives are considerable, as is their emotional response. Four of 6 components of illness representation were strongly related to Quality of life parameters. Only the emotional response dimension of illness representation is related to treatment duration.

Studies and literature related to Role of nurse in caring patients with hemodialysis:

Nursing role in dialysis area include patient monitoring, administration of conscious sedation under the supervision of the nephrologists, assisting on the procedure and recovery, and discharge of the patient .The nephrology nurse must also

have ACLS training and conscious sedation certification, as well as radiation safety training. (Donna Meril and Arif Asif 2004).

The nurse of advanced practice nurse (APN) in the acute and chronic dialysis setting has become more common as the patient population continues to increase. Nurse Practioner and clinical nurse specialists specializing in renal care, now work in diversity of health care settings covering all nephrology specialities. (C.F.Gutch, Martha H.Stone and Anna L.Corea 2005)

As in all aspects of nephrology care, nursing involvement is very important. As dialysis centers are created, nephrology nurses who are interested in this emerging sub speciality will have new opportunities to be involved in many aspects of their development and administration.(David Roth and Petricia O'Nan 2004).

A. Mangayar Karasi (2002) conducted an experimental study to assess the effective of structured teaching program on diet therapy in chronic renal failure in terms of knowledge and practice among patients with CRF from selected hospital in Madurai. 30 samples were selected for the study result of the study implies that the structured teaching programme was very effective in increasing the knowledge and changing the practice regarding renal diet therapy among patients with chronic renal failure.

CHAPTER III

RESEARCH METHODOLOGY

The research methodology indicates the general pattern of organizing the procedure of gathering valid reliable data for an investigation. This chapter provide a brief description of the method adopted by the investigation in this study.

This chapter include the research approach, research design, the setting, sample and sampling technique. It further deals with the development of tool, procedure for data collection and plan for data analysis.

RESEARCH APPROACH: Survey approach was used in this study to determine knowledge and impact of sickness in haemodialysis patient.

RESEARCH DESIGN: The study was designed to assess the knowledge on self care management among patient undergoing hemodialysis.Non experimental descriptive study was used in this study.

SETTING OF THE STUDY: The study was conducted at kidney centre, Madurai which is 2 kilometers away from the Sacred Heart Nursing College, Madurai. It is a 50 bedded hospital, with an out patient census per day is approximately 50. This hospital consist of dialysis unit, operation theatre, biochemistry lab, USG facility, in patient unit, transplantation unit etc. The Madurai Kidney Centre dialysis department has an attendance of 3-4 new dialysis patients per day. Approximately 22 patients are receiving haemodialysis per day in dialysis department.

STUDY POPULATION: The population for the study were ESRD patients who had under gone haemodialysis in Kidney Centre, Madurai.

SAMPLE: All ESRD patients undergoing haemodialysis in Kidney Centre, Madurai and who met the inclusion criteria were the samples.

SAMPLE SIZE: The total sample size was 100.

SAMPLING TECHNIQUE: Purposive sampling technique was used in this study.

CRITERIA FOR SAMPLE SELECTION: The samples for the study were selected based on the following criteria;

Inclusion criteria:-

1. Patient undergoing haemodialysis due to ESRD
2. Both male and female patient.
3. Patient speaking and understanding Tamil or English.
4. Patients who are willing participate in this study.

Exclusion criteria:

1. Patient undergoing dialysis with snake bite and poisoning.
2. Patient undergoing haemodialysis for first time.
3. Patient who are not able to follow the instructions.

RESEARCH TOOL AND TECHNIQUE

Tool 1:

It consists of structured interview schedule. It has questions related to socio demographic data and Knowledge questionnaire on self care management.

Demographic data include age, sex, and educational status, religion occupation, type of family, monthly income, place of living, family history of renal disease, duration of hemodialysis, history of diabetes and hypertension.

Knowledge questionnaire on self-care management included 20 multiple choice questions regarding dialysis, fluid, management, diet management, fistula care and medication. The multiple choices had four alternatives in each with one right answer. A score of ‘one’ was allotted for every correct answer and score of ‘zero’ was given for every wrong answer. The total score was 20.

The resulting score was regarded as follows:-

Below 50 : – Inadequate knowledge

51-75 :-Moderate knowledge

76-100 :-Adequate knowledge

Tool 2: Modified sickness impact profile

It contains 50 questions, which included physical component(21 questions),psychological component(20 questions),work related components(9 questions).It had yes or no questions. The total score was 50.

The resulting score was ranged as follows:-

0-50% :-Less degrees of disability

51-75% :-Moderate degrees of disability

>75% :-Severe degrees of disability

TESTING OF THE TOOL

Validity:-The validity of the tool was evaluated by submitting the tool to 7 experts in the field of Medicine, Nursing and Statistician for their opinion and suggestion. Based on their suggestion the tool was reframed.

Reliability:-The reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring (Polit and Hungler 2000).Reliability of the Structured questionnaire was established by test retest method. The obtained value of r=0.80 was significant. Reliability of Modified sickness impact profile was established by test retest method and here the obtained value of r=0.82 which was also significant.

PILOT STUDY

A pilot study was conducted in the Kidney center, Madurai before going for the sample survey. Using structured interview schedule and Modified sickness impact

profile, data were collected from 10 samples. The study was feasible and during data collection period the Researcher doesn't face any difficulties.

DATA COLLECTION

The data collection was done for six weeks in Kidney Centre, Madurai. With permission given by the hospital authorities and obtained permission for doing the study. Purposive sampling technique was used to select the samples. Knowledge Questionnaire was used to assess the knowledge of patients on self care management and Modified Sickness Impact Profile was used to assess the impact of sickness of hemodialysis patients. Total sample size was 100.Approximately 15-20 minutes were for taken each individual.

PLAN FOR DATA ANALYSIS

The data analysis was done according to the objectives of the study by using inferential and descriptive statistics.

Descriptive statistics:-Frequency, percentage and mean were used for the analysis of data.

Inferential statistics:-Chi-square was used to determine the association between selected variables. Rank correlation was used to determine the relationship between level of knowledge and impact of sickness.

PROTECTION OF HUMAN RIGHTS:-

The pilot study and main study were conducted after the approval of the Research committee of Sacred Heart Nursing College, Madurai. Oral consent of each study subject was obtained before starting data collection. Assurance was given to the subjects that confidentiality would be maintained.

CHAPTER IV
DATA ANALYSIS AND INTERPRETATION

This chapter deals with the distribution of the sample, analysis and interpretation of data collected and the achievement of the objectives of the study

The data collected is tabulated and presented as follows:

Section I: - Distribution of subjects based on socio demographic variables. (Table 1 & 2)

Section II: - a) Distribution of patients who undergoing hemodialysis according to the level of knowledge on self care. (Table 3)

b) Distribution of samples on the basis of various aspects of selfcare management during hemodialsis. (Table 4)

c) Distribution of patient undergoing hemodialysis according to impact of sickness. (Table 5)

d) Distribution of samples on the basis of domains of Sickness Impact Profile. (Table 6)

Section III: - Analysis of relationship between level of knowledge with impact of sickness. (Table 7)

Section IV: - a) Association between levels of knowledge with selected demographic variables among patients undergoing hemoaialysis. (Table 8)

b) Association between Impact of Sickness with selected demographic variables among patients undergoing hemodialysis. (Table 9)

SECTION I

Table1:- Frequency distribution of the patients with hemodialysis according to selected demographic variables.

N=100

Demographic Variable	Frequency
Age (in years)	
20-40	16
41-60	58
61-80	26
Sex	
Male	68
Female	32
Educational Status	
Illiterate	7
Primary	37
Secondary	36
College	16
Professionals	4
Religion	
Hindu	60
Muslim	17
Christian	23
Occupation	
Coolie	16
Self employee	27
House wife	18
Office	15
Professionals	12
Others	12

Demographic Variable	Frequency
Type of Family	12
Nuclear	
Joint	59
Monthly income (in rupees)	41
5000	
5001-7000	17
7001-10,000	41
>10,000	26
Locality	16
Urban	68
Rural	32

Table 1 shows most of the samples 58% were between the age group of 41-60 years and least of the samples 16% were from 20-40 years of age group.

Regarding sex highest number of samples 68% were males and 32% were Females.

With regard to educational status highest number of samples 37% were having primary level of education and least number 4% are professionals.

As for the religion most of the samples (60%) were Hindus and least 17% were Muslims.

Regarding occupation most of the samples (27%) were self employees and least number of samples (12%) were professionals.

According to the type of family higher number of samples (59%) were from nuclear family and remaining 41% were from joint family.

Regarding monthly income higher number of samples (41%) were having a monthly income of Rs. 5001-7000/- and least (16%) were from the monthly income of > 10,000/-

With regards to locality, highest number of samples came from urban area 68% and the remaining samples (32%) from rural area.

Table 2: Distribution of clinical profile of patients with hemodialysis.

Clinical Profile	Frequency
Family History of Renal illness	
No	94
Yes	6
Duration of recording Hemodialysis (in years)	
< 1 year	46
1-3 years	47
4-6 years	6
>6 years	1
Known case of Diabetis Mellitus	
No	33
Yes	67
Duration	
<1 year	29
1-3 years	32
4-6 years	5
>6 years	1
Known case of Hypertension	
No	24
Yes	76
Duration	39
< 1 year	27
1-3 years	7
4-6 years	1
>6 years	

Table 2 shows the clinical profile of patients on hemodialysis.

Here according to the duration of receiving hemodialysis higher number of samples 47% were having duration of 1-3 years and most number of samples (46%) were having duration of less than 1 year.

Regarding known case of diabetes mellitus, most of the samples were having DM (67%) and among these32% were having duration of 1-3 years and only 1% having duration of more than 6 years.

Regarding known case HTN 76% were hypertensive patients and among these highest number of samples (39%) were having a duration of less than 1 year and least number of samples (1%) had duration of more than 6 years.

SECTION II

a) <u>Table3:</u> Distribution of patients undergoing hemodialysis according to the level of knowledge on self care:

N=100

Level of Knowledge	Frequency
Adequate Knowledge	11
Moderate Knowledge	37
Inadequate Knowledge	52

Based on the level of knowledge obtained by the subjects regarding self care management during hemodialysis were classified in to 3 levels arbitrarily. Adequate knowledge (76-100%), moderate knowledge (51-75%),and inadequate knowledge (50% and below).The maximum obtained score for knowledge questionnaire was 20. Table 3 shows that the higher number of samples (52%) were having inadequate knowledge and least number of samples (11%) were having adequate knowledge regarding self care management during hemodialysis.

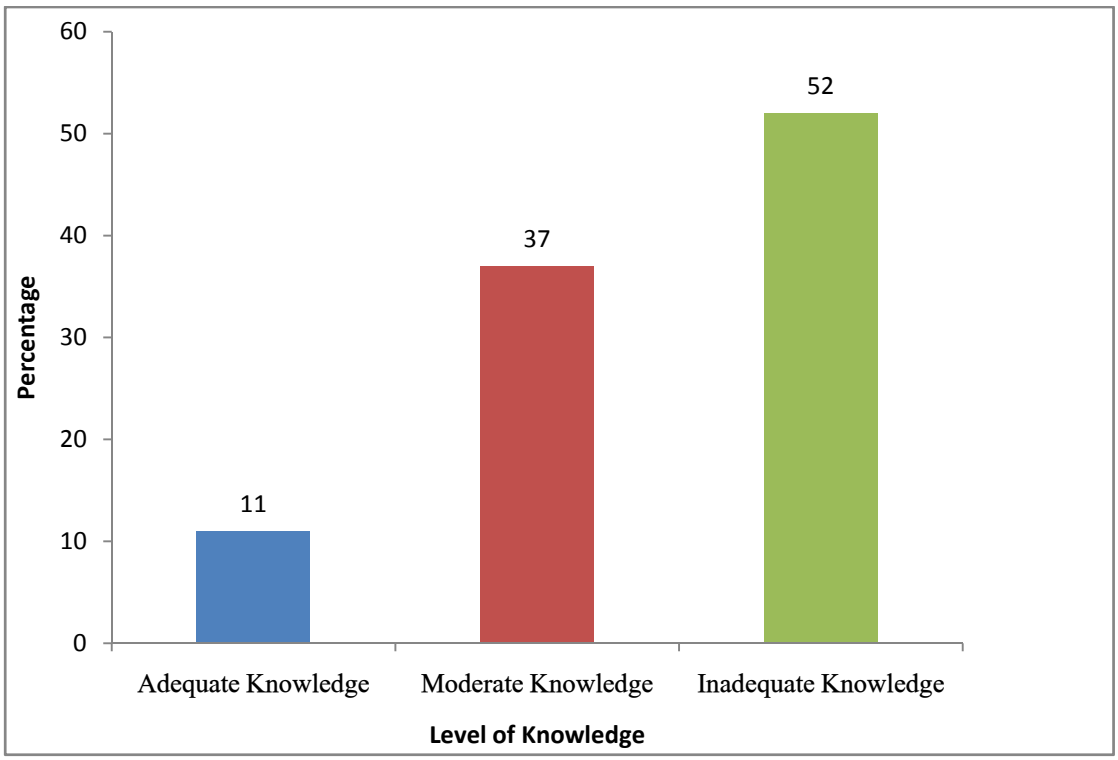

Figure 2:- Distribution of patients undergoing hemodialysis according to the level of knowledge on self care

b) Table 4:- Distribution of samples on the basis of various aspects of self care management during hemodialysis.

N=100

Level of knowledge	Inadequate	Moderate	Adequate
Dialysis	35	53	12
Fluid management	20	52	28
Diet	32	38	40
Fistula care	44	48	8
Medication	23	23	26

Table 4 shows that regarding knowledge on self care management during hemodialysis highest number of samples (53%) were having moderate knowledge and least numbers (12%) were having adequate knowledge. According to Fluid management 52% were having moderate knowledge and 20% samples were having inadequate knowledge. Regarding diet during hemodialysis highest number of samples 40% were having adequate knowledge. Regarding Fistula care most of the samples (48%) were having moderate level of knowledge and only 8% were having adequate knowledge. Regarding Medication most of the samples (51%) were having moderate knowledge and least number of samples (23%) were having inadequate knowledge.

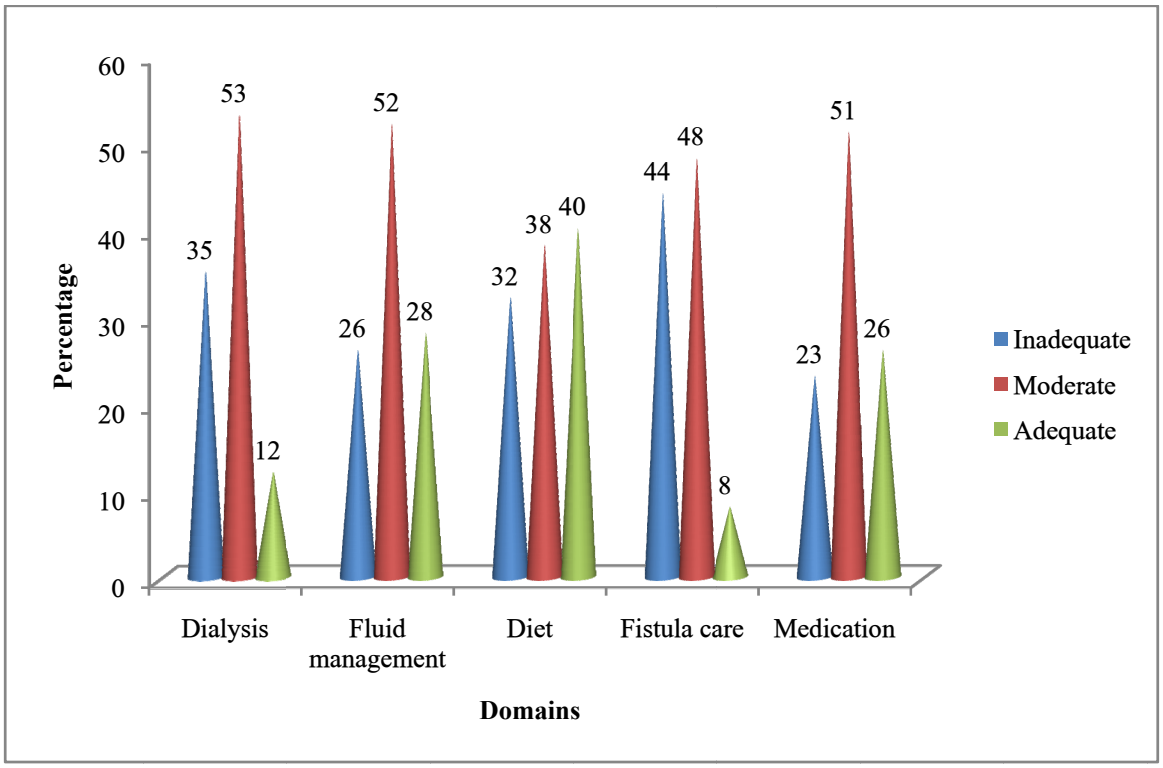

Figure 3:- Distribution of samples on the basis of various aspects of self care management during Hemodialysis

c) Table5: Distribution of patient undergoing hemodialysis according to impact of sickness

Impact of sickness	Frequency
Less degree of disability	75
Moderate degree of disability	23
Severe degree of disability	2

Based on the level of impact of sickness of subjects undergoing hemodialysis they were classified in to 3 levels as less degree of disability (50% and below), moderate degree of disability (51-70) and severe disability (70 and above). The maximum obtained score for sickness impact profile is 50 .

Table 5 shows higher number of samples (75%) were having less degree of disability 23% had experienced moderate degree of disability and least number of samples (2%) were having severe degrees of disability during hemodialysis.

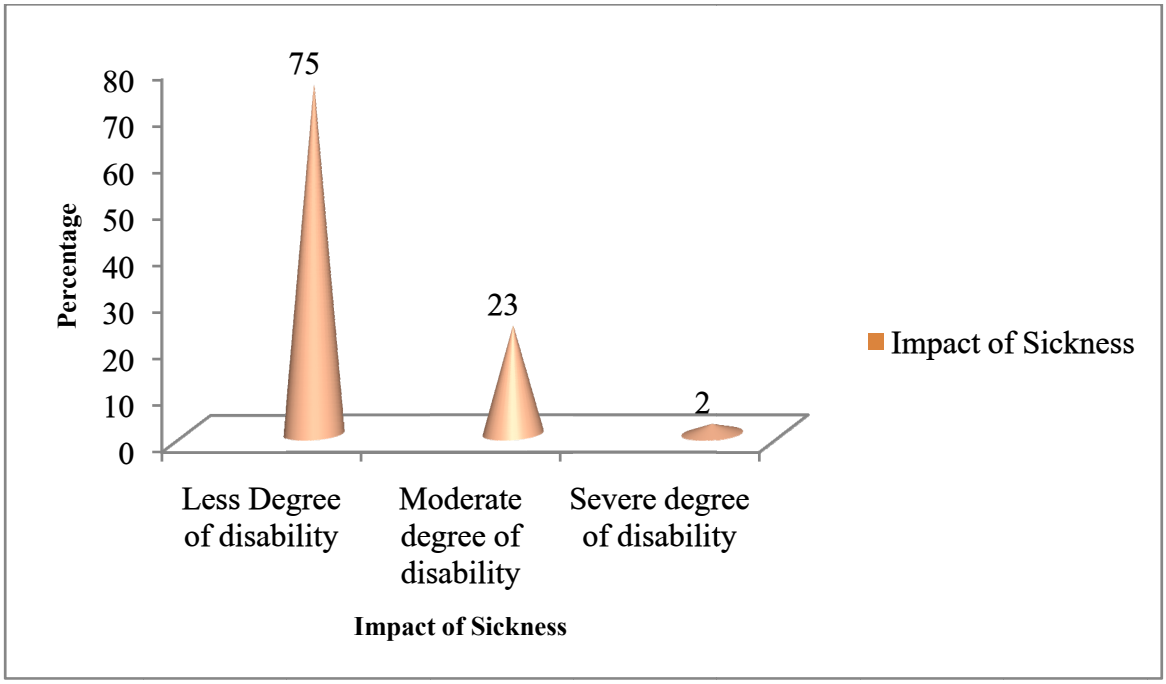

Figure 4:- Distribution of patients undergoing Hemodialysis according to impact of sickness.

d) Table6:-Distribution of samples on the basis of domains of sickness impact profile during hemodialysis

N = 100

Domains	Less degree	Moderate degree	Severe degree
Physical	58	32	10
Psychosocial	32	38	5
Work related	36	60	4

Table 6 shows regarding physical domains 58%, were having less degree of disability and least number of samples 10%, were having severe disability. Regarding psychosocial domain highest number of samples 38%, were having moderate disability and 5% samples were having severe disability. Regarding work related sickness impact profile, highest number of samples 60%, were having moderate disability and least number of samples 4%, were having severe degree of disability.

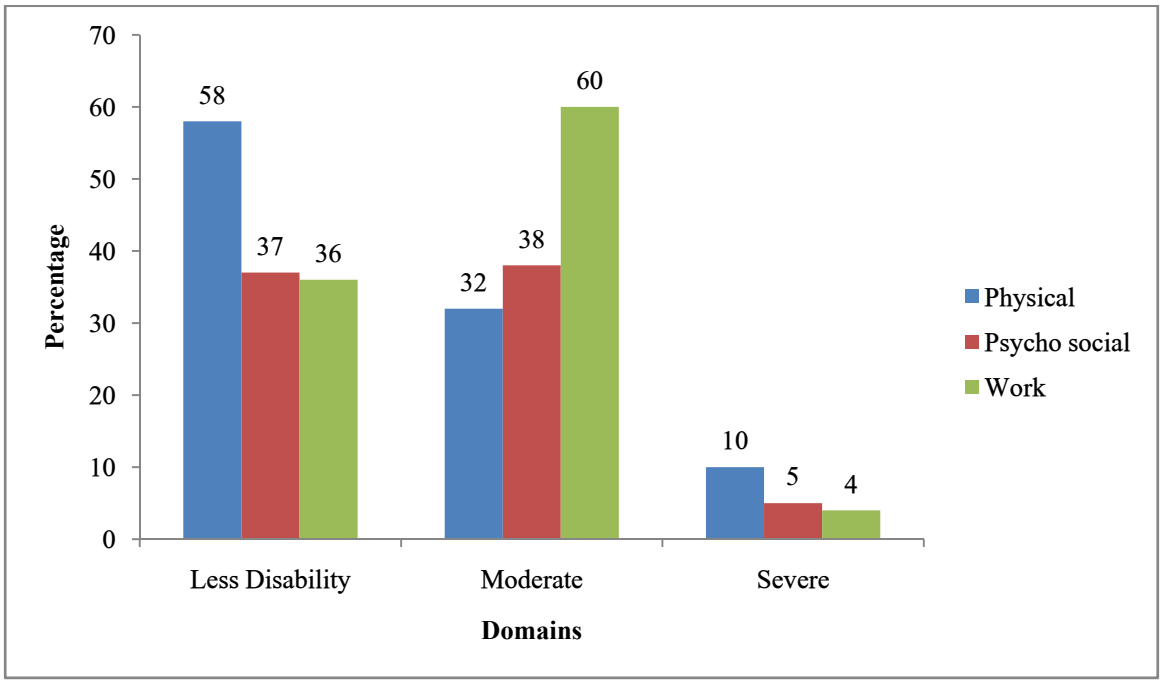

Figure 5:- Distribution of samples on the basis of domains of sickness impact profile

SECTION III

Table 7:- Co-relation Co-efficient between level of knowledge with impact of sickness of subjects on hemodialysis.

Variables	N	M	SD	r
Level of Knowledge	100	10.57	2.9	0.84*
Impact of sickness	100	20	9.4	

*Significant at0.05 level

To compare between the level of knowledge and its impact on sickness among patients on hemodialysis, the null hypotheses was stated as follows:

There will be no significant relationship between level of knowledge and its impact on sickness at 0.05level of significance.

The hypothesis was tested using Karl Pearson's co-efficient correlation method.

Table 7 portrays that the obtained r value of 0.84 which is statistically significant at 0.05 level. So the researcher rejects the null hypotheses and accepts the research hypotheses.

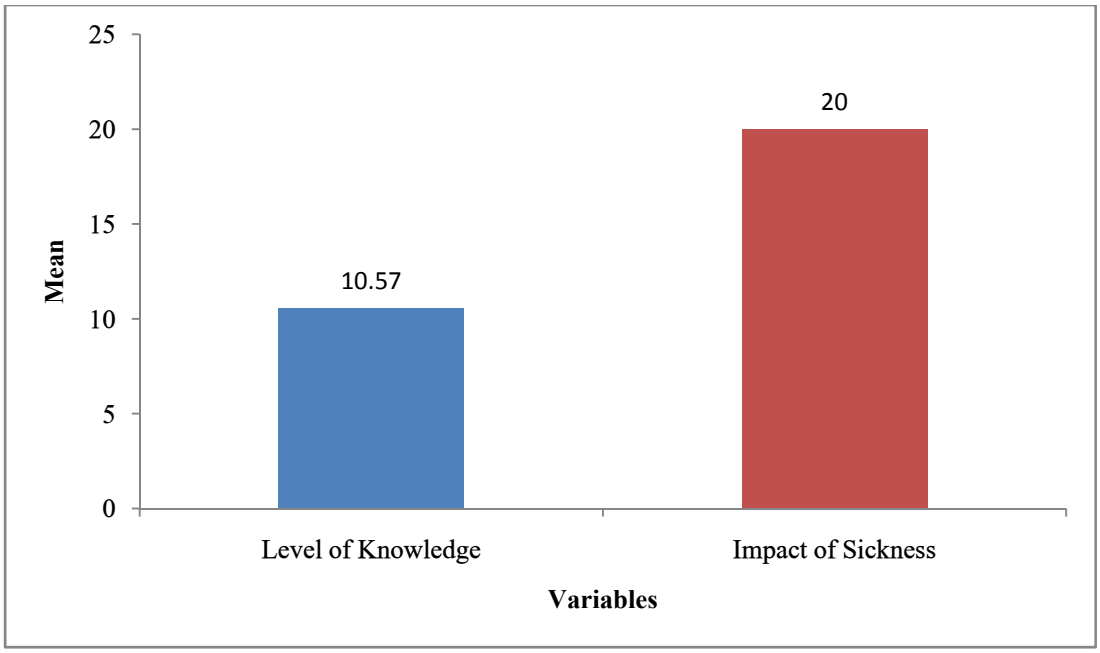

Figure 6:- Relation between level of knowledge with impact of sickness.

SECTION IV

Table 8:- a) Association between levels of knowledge with selected demographic variables.

Demographic Variable	N	Below Mean	Above Mean	df	χ^2
Age					
20-40 years	16	6	10		
41-60 years	58	32	26	2	2.59#
61-80 years	26	12	14		
Sex					
Male	68	32	36	1	72#
Female	32	18	14		
Education					
Illiterate	7	5	2		
Primary	37	21	16		
Secondary	36	19	17	4	37.22*
College	16	4	12		
Professional	4	1	3		
Religion					
Hindu	60	29	31		
Muslim	17	11	6	2	1.9#
Christian	23	10	13		
Occupation					
Coolie	16	10	6		
Office	15	3	12		
Self employee	27	16	11	5	14.89*
House wife	18	10	8		
Others	13	8	3		
Professional	12	2	10		

Demographic Variables	N	Below Mean	Above Mean	df	χ^2
Type of family					
Nuclear	59	29	30	1	.036#
Joint	41	21	20		
Income					
5000	17	16	6		
5001-7000	41	27	14	3	14.18*
7001-10,000	26	93	17		
>10,000	16	13	13		
Locality					
Urban	68	31	37	21	1.64#
Rural	32	19	13		
Family History of Renal Illness					
Yes	6	3	3		
No	94	48	46	1	.002#
Duration of HD:					
< 1 year	46	32	14		
1-3 years	47	18	29	3	11.96*
4-6 years	6	1	5		
>6 years	1	0	1		
DM					
Yes	67	32	35		
No	33	19	14	1	.83#
HTN					
Yes	70	38	38	1	.064#
No	24	13	11		

*significant at 0.05 level

#Not significant at 0.05 level.

To find out the association between level of knowledge on self care management and selected demographic variables of patients with hemodialysis, the null hypothesis was stated as follows:

There will be no significant relationship between level of knowledge with selected demographic variables (age, sex, educational status, occupation, monthly income, type of family, living locality, family history of renal disease, presence of diabetes mellitus and hypertension, duration of hemodialysis).

Mean reference to level of knowledge is significant at 0.05 limit. In order to find out the association between level of knowledge and selected demographic variables chi square was computed.

The obtained chi square value for education is 37.22 which is significant at 0.05 limits.

Regarding the occupation the obtained chi square value is 14.89 which is significant at 0.05 limits.

Regarding the monthly income the obtained chi square value is 14.18 which is significant at 0.05 limits.

This shows that there is an association between the level of knowledge with selected demographic variables like education, occupation, and monthly income. So the researcher rejects the null hypothesis and accepts the research hypothesis.

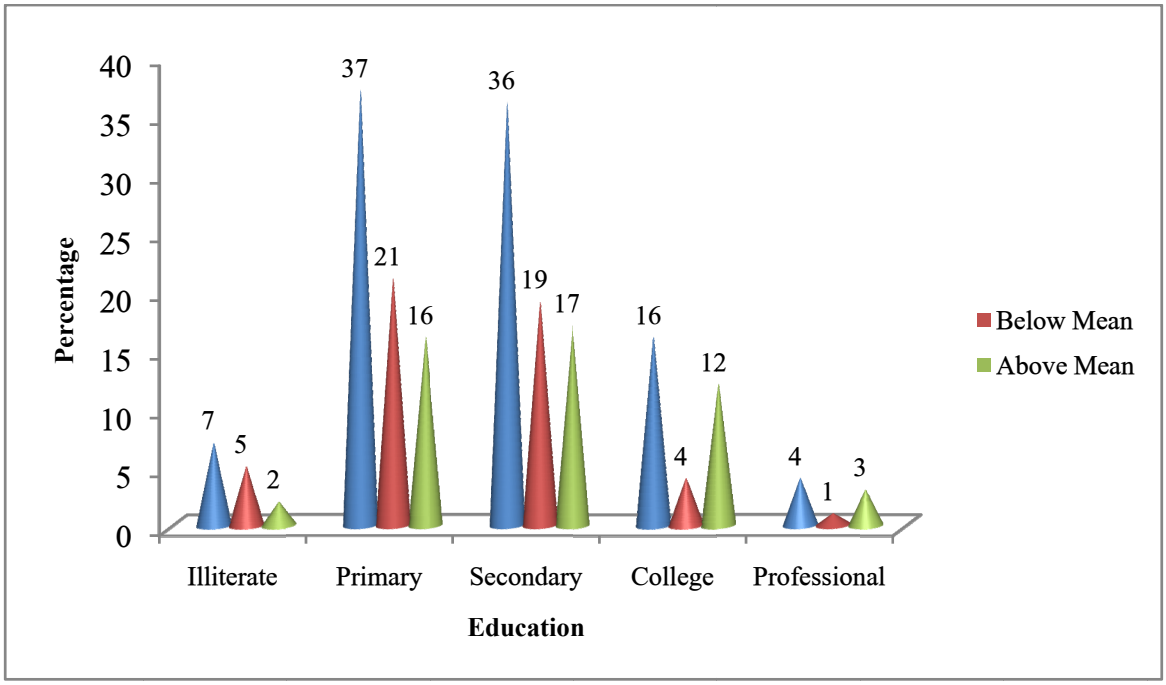

Figure 7:- Association between level of knowledge with education

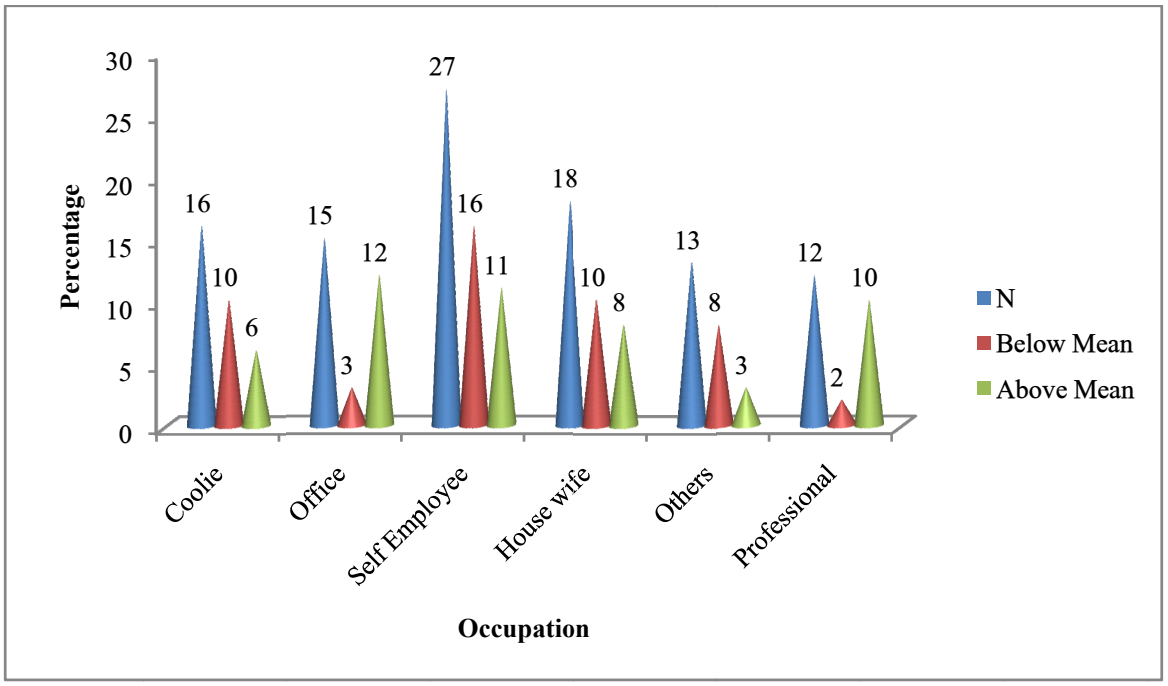

Figure 8:- Association between level of knowledge with Occupation.

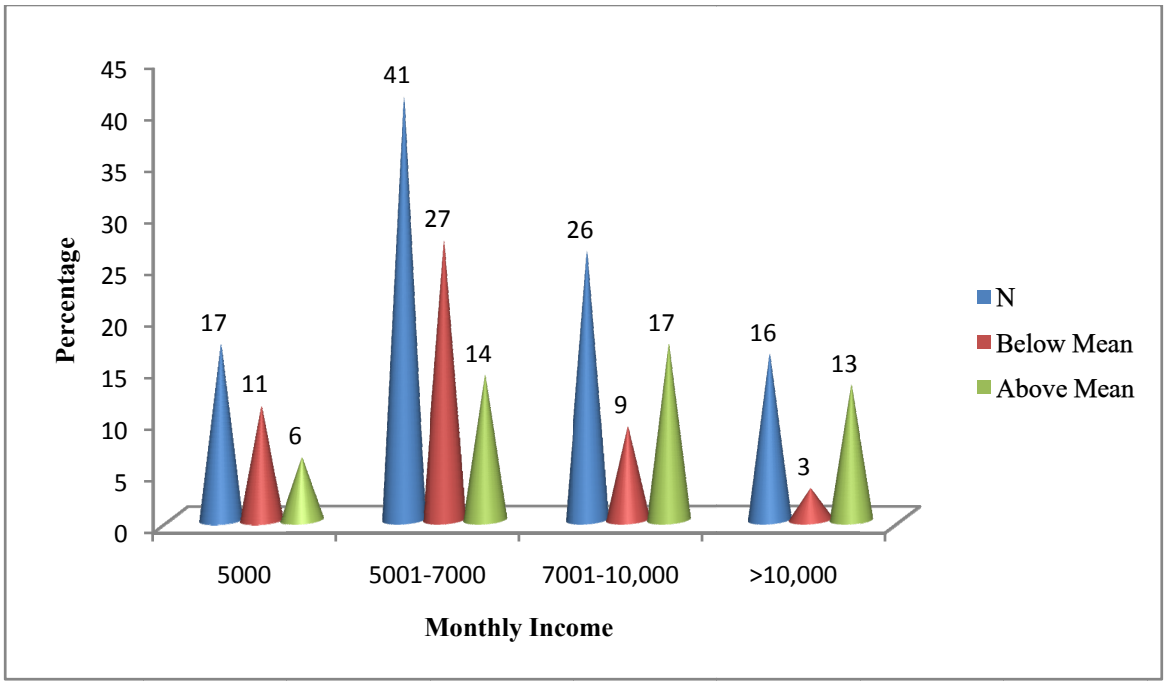

Figure 9:- Association between level of knowledge with Monthly Income.

Table 9:-b) Association between impact of sickness with selected demographic variables

Demographic Variable	N	Below Mean	Above Mean	df	χ^2
Age:					
21-40 years	16	12	4		
41-60 years	58	34	24	2	15.34*
61-80 years	26	5	21		
Sex:					
Male	68	35	33		
Female	32	16	16	1	.017#
Education:					
Illiterate	7	1	6		
Primary	37	17	20		
Secondary	36	17	19	4	10.91*
College	16	13	3		
Professional	4	3	1		
Religion:					
Hindu	60	36	24		
Muslim	17	4	13	2	7.12#
Christian	23	11	12		
Occupation:					
Coolie	16	5	11		
Office	15	7	8		
Self employee	27	16	11	5	6.74#
House wife	18	8	10		
Others	12	6	6		
Professional	12	9	3		
Type of Family:					
Nuclear	59	32	27	1	.59#
Joint	41	19	22		

Demographic Variable	N	Below Mean	Above Mean	df	χ^2
Monthly Income:					
5000	17	5	12		
5001-7000	41	19	22		
7001-10,000	26	15	11	3	7.96*
>10,000	16	12	4		
Locality					
Urban	68	32	36		
Rural	32	19	13	1	1.3#
Family History of Renal Illness:					
Yes	6	3	3		
No	94	48	46	1	.002#
Duration of Hemodialysis:					
<1 year	46	32	14		
1-3 years	47	18	29		
4-6years	6	1	5	3	11.96*
>6 years	1	0	1		
Diabetes mellitus:					
Yes	67	32	35		
No	33	19	14	1	.83#
Hypertension:					
Yes	76	38	38		
No	24	13	11	1	.064#

*significant at 0.05 level

#Not significant at 0.05 level.

To find out the association between impact of sickness and selected demographic variables of patients on hemodialysis, the null hypotheses was stated as follows:

There will be no significant relationship between impact of sickness on selected demographic variables (age, sex, educational status, occupation, monthly income, type of family, family history of renal disease, presence of diabetes mellitus and hypertension, duration of hemodialysis) of patients on hemodialysis.

In order to find out the association between demographic variables and impact of sickness chi square test was computed.

The obtained chi square value for age is 15.34 which is significant at 0.05 limit.

Regarding the education status the obtained chi square value is 10.91 which is significant at 0.05 limit.

According to the monthly income the obtained chi square value is 7.96 which is significant at 0.05 limit.

Regarding to duration of hemodialysis the obtained chi square value is 11.96 which is significant at 0.05 level.

It shows that there is an association between impact of knowledge on selected demographic variables of patients on hemodialysis. So the researcher rejects the null hypotheses and accepts the research hypotheses.

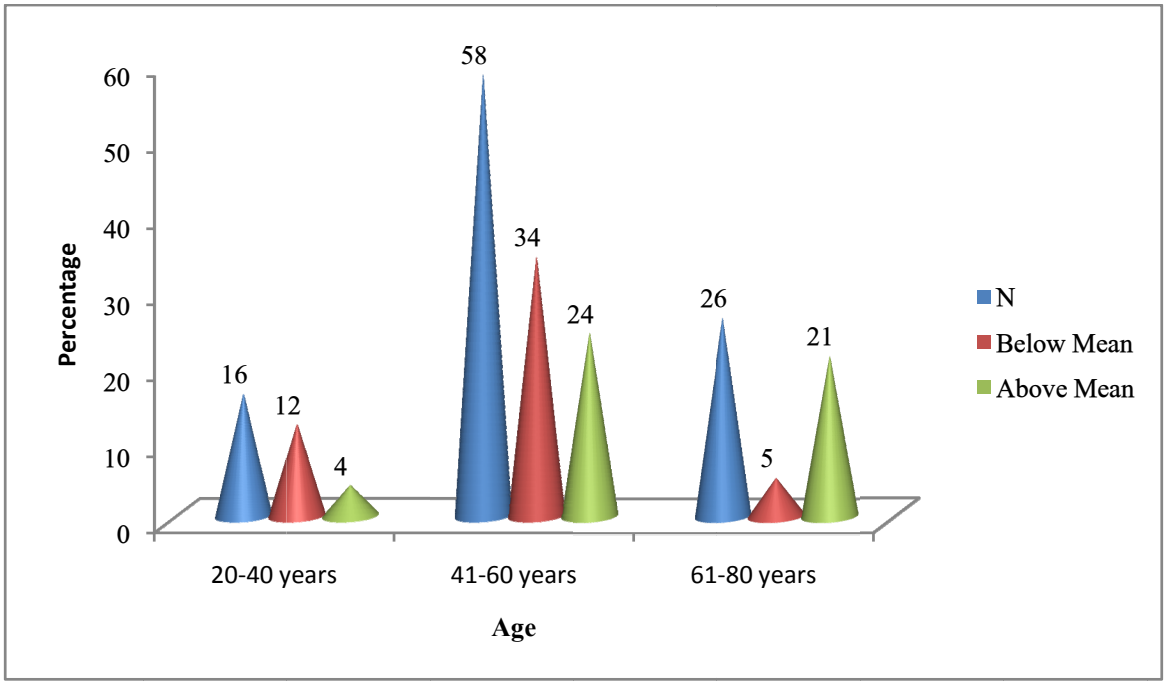

Figure 10 Association between impact of sickness with age.

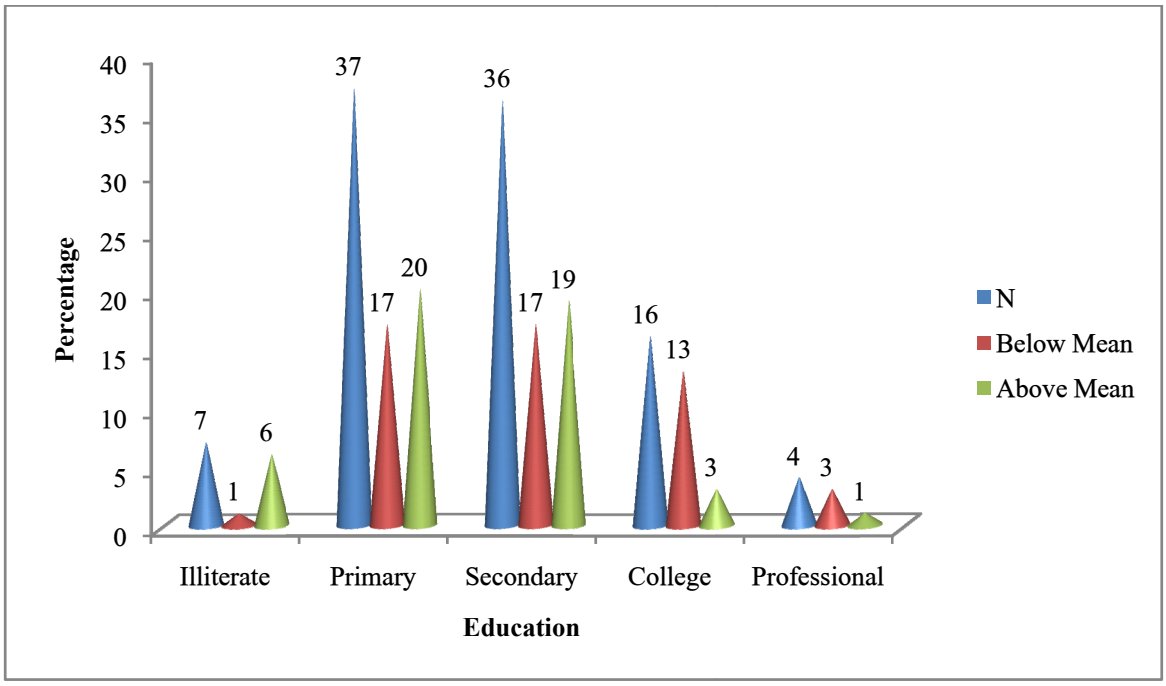

Figure 11:- Association between impact of sickness with Education

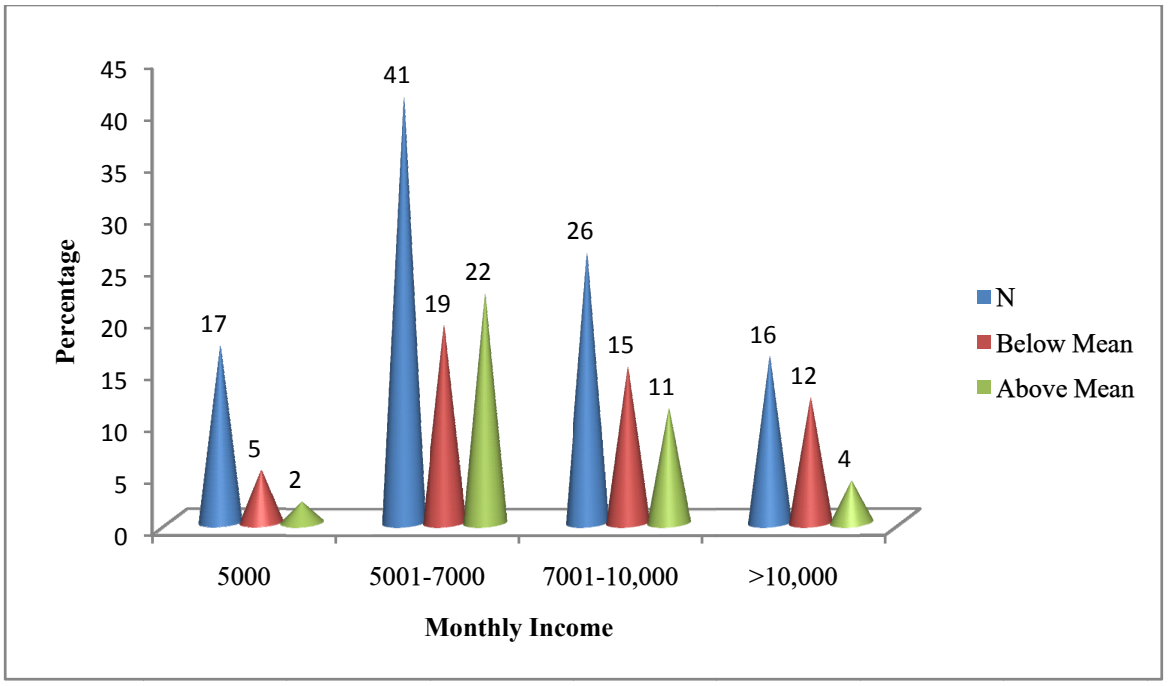

Figure 12:- Association between impact of sickness with Monthly Income.

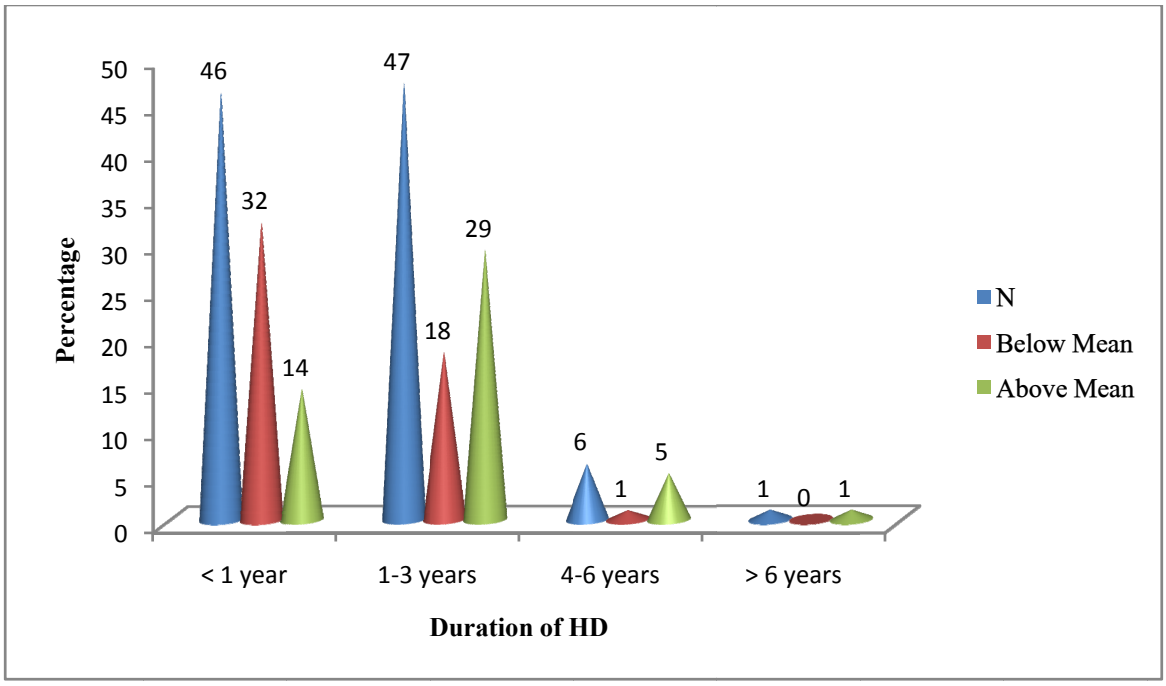

Figure 13:- Association between impact of sickness with Duration of HD

CHAPTER V

DISCUSSION

The aim of the study was to assess the knowledge on self care management and impact of sickness on patients with hemodialysis. The study findings were discussed in this chapter with reference to objectives, the framework and hypotheses stated in chapter 1.

The demographic characteristics of the samples:

- The study findings showed that 16% of samples were between 20-40 years of age, 58% were in 41-60 years of age and 26% were of 61-80 years of age.
- With regards to sex 68% of samples were males and 32% were females.
- Regarding education status 7% were illiterate, 37% were having primary school education, 30% were having secondary education, 16% were studied collegiate programme and 4% were having professional education.
- Regarding the religion 60% were Hindus 17% were Muslims and 23% were Christians.
- Regarding occupation 16% were coolie workers, 27% were self employees, 18% were house wives, 15% were officers, 12% were professionals and 12% were others.
- Regarding the type of family 59% were from nuclear family and 41% were from joint family.
- Regarding monthly income majority of the participants 41%had Rs.5001-7000 as monthly income and only 16% had Rs.10,000 as monthly income.
- Regarding the living locality 68% were from urban area and remaining 32% were from rural area.

THE FIRST OBJECTIVE OF THE STUDY WAS TO ASSESS THE KNOWLEDGE REGARDING SELF CARE MANAGEMENT AMONG PATIENTS WITH HEMODIALYSIS

The data presented in table 3 shows the knowledge among patient with hemodialysis 52% of the subjects were found with inadequate level of knowledge regarding self care management and 11% of patients were having adequate level of knowledge regarding self care management.

The above findings were supported by the study done by Regula.Ricka (2002). The purpose of this article was to clarify the concept on: 'adequate self-care of patients treated with hemodialysis (HD) or continuous ambulatory peritoneal dialysis (CAPD)'. This was done by the specification of Orem's general definition of self-care and a review of the literature. Adequate knowledge on self-care behaviours for preventing and regulating pathological processes and related disabilities e.g. following dialysis and medication prescriptions, adequate care for vascular access, as well as diet and fluid regimens are well documented. Adequate self-care behaviours aimed to promote personal well-being or development are less well documented. The authors suggested that adequate knowledge on self-care would enlarge the scope of the disease management of HD and CAPD patients. Further research should focus on systematically investigating self-care activities of dialysed patients and their contribution to health and quality of life outcomes.

THE SECOND OBJECTIVE OF THE STUDY WAS TO ASSESS THE IMPACT OF SICKNESS AMONG PATIENTS WITH HEMODIALYSIS

Table 4 shows that 75% of patients were having less degree of disability and 2% were having severe degrees of disability.

The above finding is supported by the study done by Alan J Christian (2005) had done a study on "Body consciousness, illness related impact and patient adherence in hemodialysis". The study examined the joint effect of private body consciousness (PBC) and degree of illness related impairment on treatment regimen adherence in a sample of 52 patients. It was predicted that the effect of PBC on adherence would vary as a function of patient's level of illness related physical impairment. For patients experiencing more severs impairment, higher PBC score was associated with poor adherence to prescribed medication and dietary regimen. In contrast for patient experiencing a relatively low degree of disease related physical impairment, higher private body consciousness was associated with more favourable adherence

THE THIRD OBJECTIVE OF THE STUDY WAS TO FIND OUT THE RELATIOSHIP BETWEEN KNOWLEDGE AND IMPACT OF SICKNESS AMONG PATIENT WITH HEMODIALYSIS

Table 7 shows that there is a positive relationship between level of knowledge as M=10.57 ,SD=2.9 and impact of sickness as M=20.SD=9.4 and the r value r=0.84,p□0.05.

This was supported by the study done by Hadassa Madar (2004) on "The experience of uncertainity among patient having dialysis."This study was conducted to examine factors that may influence level of uncertainity in patient on dialysis.

Among 71 hemodialysis patients their average age was 57 years and average number of educated was 11.9 The subjects answered a questionnaire comprising medical data, perception of nurse, satisfaction with social support, level of uncertainity regarding the disease and its treatment. The level of knowledge was found to affect both uncertainities.

THE FOURTH OBJECTIVE OF THE STUDY WAS TO FIND OUT THE ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE WITH SELECTED DEMOGRAPHIC VARIABLES OF PATIENTS WITH HEMODIALYSIS

Table 8 shows that there is a positive relationship between level of knowledge on self care management and selected demographic variables such as education ($\chi^2 = 37.22$, $p < 0.05$), occupation ($\chi^2 = 14.89$, $p < 0.05$), and monthly income ($\chi^2=14.18$, $p < 0.05$).

This was supported by the study done by Helena Leino-Kilpi (2008) done a study on “Knowledge expectations of hemodialysis patient” on 47 hemodialysis patients. In order to be empowered in different situations related to dialysis care, patients need knowledge. This study described the knowledge expectations of patients on dialysis treatment (n = 47) and selected background variables. The results indicated that patients expressed moderate knowledge expectations. Most important were the biophysiological, functional, and ethical dimensions of knowledge. The least important were the social and experiential dimensions of knowledge. Patients' age, employment status, and length of dialysis were positively correlated with knowledge expectations

.

THE FIFTH OBJECTIVE OF THE STUDY WAS TO FIND OUT THE ASSOCIATION BETWEEN IMPACT OF SICKNESS AND SELECTED DEMOGRAPHIC VARIABLES

Table 9 shows that there is a positive relation between impact of sickness and selected demographic variables such as age ($\chi^2 = 15.34$, $p < 0.05$), education ($\chi^2 = 10.91$, $p < 0.05$), monthly income ($\chi^2 = 7.96$, $p < 0.05$), and duration of hemodialysis ($\chi^2 = 11.96$, $p<0.05$) on patients with hemodialysis.

This findings were supported by the study done by Fusun Erdenen and Sehriban Curuk(2006), In this study ,the aim was to investigate the relationship between chronic physical disease and disability level in patients with chronic renal failure (CRF), who were in a hemodialysis (HD) programme. They enrolled 75 CRF (37 female, 38 male) and 50 healthy controls (22 female, 28 male). The mean age was 51.05±15.87 years in the patient group, and 49.86±17.22 years in the control group. Data from all groups were obtained using the Sociodemographic Form (SDF), Brief Disability Questionnaire (BDQ), Short Psychiatric Rating Scale (BPRS), and Hospital Anxiety and Depression Scale (HAD). Anxiety and depression levels and BDQ total scores were significantly higher in the patient group. No significant difference was observed between patient and control groups for the BPRS. . Moderate and severe disability and depression levels were significantly higher among uneducated and long term hemodialysis patients.

CHAPTER VI
SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

This chapter deals with the summary and conclusion of the study. It clarifies the implication for nursing practice with recommendations for further research in the field.

Summary of the study

This study was undertaken to assess the knowledge on self care management and impact of illness among patients on hemodialysis from selected hospital, Madurai.

Objectives of the study

1. To determine the knowledge regarding self care management among patients with hemodialysis on selected hospital Madurai.
2. To determine impact of sickness among patient with hemodialysis on selected hospital Madurai.
3. To find out relationship between level of knowledge and impact of sickness among patient with hemodialysis on selected hospital Madurai.
4. To find out association between level of knowledge with selected demographic variables of patient with hemodialysis (age, sex, education, occupation, living locality, monthly income hypertension, diabetis mellitus and duration of hemodialysis).
5. To find out the association between impact of sickness with selected demographic variables (age, sex, education, occupation, living locality, monthly income, hypertension, diabetis mellitus, family history of renal disease and duration of hemodialysis).

Based on the objectives the following hypotheses were tested at 0.05 level of significance.

- There will be a significant positive relationship between level of knowledge and impact of sickness among patients with hemodialysis.
- There will be a significant association between level of knowledge with selected demographic variables (education, occupation and monthly income).
- There will be a significant association between impact of sickness with selected demographic variables (education, monthly income, duration of hemodialysis).

In this study Non experimental descriptive design was used. This study was conducted in Kidney center, Madurai. The conceptual framework of the study was based on Orem's self care theory. A purposive sampling technique was used to select the study subjects. The total number of samples were 100.

Data collection tool consists of three parts. First part consist of demographic variables of hemodialysis patient, second part consist of knowledge questionnaire to assess the level of knowledge on self care management and the third part consist of Sickness impact profile to assess the impact of sickness on hemodialysis patient. The tools were given to 7 experts for validity testing. Reliability was tested by using test retest method. Pilot study was conducted to find out the feasibility of the study.

Major findings of the study

- Regarding, age 58% were in the 40-60 age group, 26% were 61-80 age group and 16% were 20-40 years of age.
- Regarding sex, 68% were males and remaining 32% were females.

- Regarding educational status most of the samples, 37% had primary education and least of them, 4% had professional education.
- Regarding religion most of the samples, 60% were Hindus and least of them, 17% were Muslims.
- Regarding occupation most of the subjects, 27% were self employees and least of the subjects, 12% were professionals.
- Regarding type of family, 59% were nuclear family and 41% were from joint family.
- Regarding monthly income most of the samples, 41% had Rs.5001-7000 and least subjects 16% had Rs>10,000.
- Regarding living locality 68% were living in urban area and 32% were living in Rural area.
- Regarding family history of renal disease 6% were having family history of renal disease and 94% were not having the renal disease history.
- Regarding duration of hemodialysis most of the samples were having duration of 1-3 years and least number, 1% had a duration of >6 years.
- Regarding Diabetes mellitus 67% were diabetic patients and 33%were non diabetic patients.
- Regarding Hypertension 76% were having Hypertensive patients and 24% were non Hypertensive patients.
- Regarding the level of knowledge majority of samples, 52% were having inadequate knowledge and least number of samples, 11% were having adequate level of knowledge.
- On the basis of various aspects of self care management during hemodialysis, highest number of samples, 40% were having adequate

knowledge on dietary aspects and least number of samples, 8% were having adequate knowledge on fistula care.

- Regarding the impact of illness, highest number of samples 75% were having less degrees of disability and least number of samples, 2% were having severe degrees of disability.
- Regarding the domains of sickness impact profile, majority of samples 10% were having severe disability on physical domain while only 4% were having severe disability on work related domains.
- There was a significant relationship between level of knowledge and impact of sickness. The obtained r value is 0.84.
- There was a significant relationship between level of knowledge and selected demographic variables (education[χ^2=37.22], occupation [χ^2=14.89], monthly income[χ^2=14.18]) .
- There was a significant relationship between impact of sickness and selected demographic variables (age[χ^2=15.34], education [χ^2=10.91], monthly income [χ^2=7.69] and duration of hemodialysis [χ^2=11.96]).

CONCLUSION

The following conclusions were drawn from this study;

- On the basis of level of knowledge, majority of samples 52% were having inadequate knowledge and least number of samples, 11% were having adequate knowledge.
- Regarding the impact of sickness, majority of samples 75% were having less degree of disability and only 2% were having severe degree of disability.

- This study showed that there was a significant relationship between level of knowledge and impact of sickness among patient with hemodialysis.
- There was an association of knowledge on self care management among patient with hemodialysis with education, occupation and monthly income.
- There was an association of impact of sickness with age, monthly income and duration of hemodialysis on patients on hemodialysis.

IMPLICATION

***Implication for nursing practice*;**

I. Nurses play a vital role in direct care of patient undergoing hemodialysis.

II. Nurses are responsible for ongoing assessment of patients.

III. Nurses should provide patient and family education, ongoing reinforcement and support for self care.

***Implication for nursing education*;**

I. There should be greater emphasize in the nursing curriculam about impact of sickness among patient with hemodialysis.

II. Post graduate nursing students must be motivated to identify physical impact of hemodialysis patient and also for giving health education.

Implication for nursing administration;

I. The administrator can encourage the nurse to provide health education to dialysis patient and care givers.

II. The nursing administrator can organize continuing nursing education on caring of fistula site and prevention of infection and complication on dialysis patient.

III. Staff nurse can be trained to improve the technical skills.

Implication for nursing research ;

The findings of the present study have added knowledge to the already existing literature and the implication for nursing research are given in the form of recommondation. This study can be baseline for future studies to build upon and motivate other researchers to conduct further studies.

LIMITATION

- This study was confined to the Madurai Kidney Centre only because, it provided an easy access to the researcher.

RECOMMENDATIONS

On the basis of present study the following recommendations have been made for future study.

a. A longitudinal study can be undertaken to see the long term effect of health education on hemodialysis patient.
b. Study can be done in Government setting also.
c. Interventions can be planned to reduce the physical disabilities of hemodialysis patients.
d. A qualitative approach can be applied in studying the effect of illness among patients with hemodialysis.

SUMMARY

This chapter has dealt with the summary of the study, major findings of the study, conclusion, discussion, implication to the nursing field, limitation of the study and recommendations for future studies.

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APPENDIX – A

COPY OF LETTER SEEKING PERMISSION

TO CONDUCT THE STUDY IN KIDNEY CENTER , MADURAI

Dr. NALINI JEYAVANTHYA SANTHA
Principal.

4/235, COLLEGE ROAD
THASILDAR NAGAR
MADURAI – 625 020
PHONE: 2534593

Ref. UT: SHNC: 2010

Date: 01.06.2010

To

The Chief Medical Officer
Kidney center
Madurai.

Respected Sir / Madam,

Sub: Sacred Heart Nursing College, Madurai – Project work of M. Sc (Nursing) student – permission requested – reg.

We wish to state that _____ Final year M. Sc (Nursing) student of our college has to conduct a Research project, which is to be submitted to The Tamilnadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirements.

The topic of research project is **" A study to assess the level of knowledge on self care management and impact of illness among patients on hemodialysis on selected hospital Madurai".**

We therefore request you to kindly permit her to do the research work in Kidney Center Madurai ,from June 1st to June 26th which is in your control, under your valuable guidance and suggestions.

Thanking you,

Yours faithfully,

Principal

SACRED HEART NURSING COLLEGE

APPENDIX – B

COPY OF LETTER SEEKING EXPERT'S OPINION FOR CONTENT VALIDITY

Dr. NALINI JEYAVANTHYA SANTHA
Principal.

4/235, COLLEGE ROAD
THASILDAR NAGAR
MADURAI – 625 020
PHONE: 2534593

Ref. UT: SHNC: 2010

Date: 01.06.2010

To

The Chief Medical Officer
Kidney center
Madurai.

Respected Sir / Madam,

Sub: Sacred Heart Nursing College, Madurai – Project work of M. Sc (Nursing) student – permission requested – reg.

We wish to state that _____Final year M. Sc (Nursing) student of our college has to conduct a Research project, which is to be submitted to The Tamilnadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirements.

The topic of research project is**" A study to assess the level of knowledge on self care management and impact of illness among patients on hemodialysis on selected hospital Madurai".**

We therefore request you to kindly permit her to do the research work in Kidney Center Madurai ,from June 1st to June 26th which is in your control, under your valuable guidance and suggestions.

Thanking you,

Yours faithfully,

Principal

SACRED HEART NURSING COLLEGE

APPENDIX – C

LIST OF EXPERTS CONSULTED FOR THE CONTENT VALIDITY OF RESEARCH TOOLS

1. **Dr.Sivakumar,MD,DM(Nephro)**
   Consultant Nephrologist
   Kidney center
   Madurai

2. **Dr.Rony J.Pulikkan MD,DM(Nephro)**
   Consultant Nephrologist
   Moulana hospital
   Perinthalmanna
   Kerala

3. **Dr.Rajeev .E.MD, DNB, DM.**
   Chief Consultant Interventional Cardiologist
   Moulana hospital
   Perinthalmanna
   Kerala

4. **Mrs.Pookuzhaly, MSc(N), PhD**
   Principal
   College of Nursing
   Madurai Medical College
   Madurai.

5. **Mrs. Sharmila,MSc(N), PhD**
   Professor
   CSI College of nursing
   Neyoor.

6. **Mrs. Devakirubai. MSc(N),PhD**
   Professor
   Sacred heart college of nursing
   Madurai.

7. **Mr.Senthil Kumar , MSc,Mphil,PGDAS**
   Statistician
   Sacred heart nursing college.

APPENDIX D

STRUCTURED INTERVIEW SCHEDULE

PART – I

SOCIO DEMOGRAPHIC DATA

1. Number of the sample :

2. Age :

3. Sex : a) Male ☐ b) Female ☐

4. Education Status :

a) Illiterate ☐ b) Primary ☐ c) Secondary ☐

d) College ☐ e) Professionals ☐

5. Religion : a) Hindu ☐ b) Muslim ☐

c) Christian ☐ d) Others ☐

6. Occupation : a) Coolie ☐ b) Self Employee ☐

c) House wife ☐ d) Professions ☐

e) Officers ☐ f) Others ☐

7. Family : a) Nuclear ☐ b) Joint family ☐

8. Monthly Income : a) 5000/Rs ☐ b) 5001-7500/Rs ☐

c) 7001-10000/Rs ☐

d) > 10000/Rs ☐

9. Locality : a) Urban ☐ b) Rural ☐

10. Any relative of family members with same disease

a) Yes ☐ b) No ☐

If Yes specify the relationship.

11. When you have started hemodialysis treatment

a) < 1 year ☐ b) 1-3 years ☐

d) 4-6 years ☐ d) > 6 years ☐

12. How many times have you been undergoing hemodialysis?

13. Do you have diabetes : a) Yes ☐ b) No ☐

Duration:

Treatment:

14. Are you a hypertensive patient : a) Yes ☐ b) No ☐

Duration:

Treatment:

PART – II

Knowledge Questionaire on self care knowledge aspect of patient on Hemodialysis

Dialysis: **Score**

1. What are the Main functions of the kidney?
    a. Removal of Waste product 1
    b. Removal of fluids 0
    c. Storage of urine 0
    d. All the above 0
2. What is dialysis?
    a. Removal of excess water and waste product from the body 1
    b. Removal of sodium from the blood 0
    c. Removal of toxins 0
    d. All the above 0

Fluid Management:

3. What are the measures you take to control excessive intake of fluid when you are thirsty?
    a. Zip of water 1
    b. Medication 0
    c. Take juices 0
    d. All the above 0

4. How can you measure fluid balance in the body?

    a. By checking weight 0

    b. By checking urine output and fluid intake 0

    c. By checking for edema 0

    d. All the above 1

5. How we can calculate fluid intake of one day?

    a. Previous day's urine output + 600 1

    b. Previous day's urine output – 600 0

    c. Same as previous day's urine output 0

    d. All the above 0

6. What is the maximum level of weight gain during dialysis

    a. 1 – 3 kg 1

    b. 2 – 6 kg 0

    c. 3 – 6 kg 0

    d. All the above 0

7. Which is the common site for checking edema?

    a. Legs 1

    b. Face 0

    c. Arms 0

    d. All the above 0

Diet Management:

8. Why high calories are needed during hemodialysis?
    a. To avoid muscle wasting 1
    b. To avoid muscle cramps 0
    c. To avoid edema 0
    d. All the above 0
9. What type of food to be avoided while receiving avoided while receiving hemodialysis?
    a. Sodium / Potassium / Phosphorous 1
    b. Sodium / Magnesium 0
    c. Carbohydrates 0
    d. All the above 0
10. Which are the foods rich in sodium?
    a. Table salt 1
    b. Coconut water 0
    c. Milk 0
    d. All the above 0
11. What are the foods containing high biological value protein?
    a. Meat / Egg 1
    b. Fruits 0
    c. Table salt 0
    d. All the above 0

12. Which are he hidden source of sodium?

    a. Pickle / pappad / salt fish 1

    b. Table salt 0

    c. Meat 0

    d. All the above 0

13. Which are the rich sources of potassium?

    a. Citrus fruits / Coconut water 1

    b. Milk 0

    c. Meat 0

    d. All the above 0

Fistula Care:

14. How will you take care of the fistula site at home?

    a. Avoid sleeping on affected arm 1

    b. Apply ointment 0

    c. Put tight dressings 0

    d. All the above 0

15. How can you assess the functioning of vascular access?

    a. By checking thrill 1

    b. By checking pulse rate 0

    c. By checking weight 0

    d. All the above 0

16. What are the main signs and symptoms of infection at fistula site?

    a. Redness, swelling 1

    b. Low BP 0

    c. Dizziness / Nausea 0

    d. All the above 0

17. Care of access site is designed to

    a. Prevent infection 1

    b. Prevent edema 0

    c. Prevent bleeding 0

    d. All the above 0

Medication:

18. If you are diabetic patient what are the precautions you take before doing dialysis

    a. Avoid taking oral hypoglycemic agents and insulin injection 1

    b. Avoid oral hypoglycemic agents 0

    c. Avoid insulin injection 0

    d. All the above 0

19. If you are hypertensive, what precautions you take before dong dialysis

    a. Avoid antihypertensive tablets before dialysis 1

    b. Take extradoses of antihypertensive agents 0

    c. Check BP 0

    d. All the above 0

20. Which are the vaccine patient should receive with hemodialysis?

a. Hepatitis A	0
b. Hepatitis B	1
c. Hepatitis C	0
d. All the above	0

APPENDIX E

பகுதி I

1. மாதிரி எண் :

2. வயது :

3. பால் : a.ஆண் b.பெண்

4. கல்வித்தகுதி :

a.படிப்பறிவில்லாதவர்
b.ஆரம்பக்கல்வி
c.உயர்நிலைக்கல்வி
d.கல்லூரி
d.உத்தியோக சம்பந்தமான

5.மதம் : a.இந்து b.முஸ்லீம்
c.கிறிஸ்துவம் d.மற்றவைகள்

6.வேலை : a.கூலி c.சுயதொழில்
b.இல்லத்தரவி d.உத்தியோகசம்பந்தமான
e.அலுவலகவேலை f.மற்றவைகள்

7.குடும்பம் : a.தனிக்குடும்பம் b.கூட்டுக்குடும்பம்

8.மாத வருமானம் : a.ரூ.5,000/-
b.ரூ.5001/- - 7,000/-
c.ரூ.7001/- - 10,000/-
d.> ரூ.10,000/-

9. குடியிருப்பு a.கிராமம் b.நகரம்

10.குடும்பத்தில் யாரேனும் இதே நோயால் பாதிக்கப்பட்டுள்ளனரா?

ஆம் இல்லை

ஆமாம் என்றால் குறிப்பிடத்தக்க உறவுமுறை

11. எப்பொழுது இருந்து நீங்கள் இரத்த சுத்திகரிக்கும் சிகிச்சையை செய்து வருகிறீர்கள்?

a.<1 ஆண்டு
b.1-3 ஆண்டு
c.4-6ஆண்டு
d.6 ஆண்டுகள்

12. எத்தனை முறை நீங்கள் இரத்த சுத்திகரிப்பு செய்துள்ளீர்கள்?

a.
b.

13. நீங்கள் சர்க்கரை நோயாளியா?

ஆம்
இல்லை

ஆமாம் என்றால்

எத்தனை காலம் உள்ளது

சிகிச்சைகள்

14. உங்களுக்கு இரத்தக்கொதிப்பு உள்ளதா?

ஆம்
இல்லை

ஆமாம் என்றால்

எத்தனைகாலம் உள்ளது

சிகிச்சைகள்

பகுதி II

1. சிறுநீரகத்தின் வேலை என்ன?
   a.கழிவுப்பொருட்கள் நீக்குதல்
   b.நீரை நீக்குதல்
   c.சிறுநீரை சேகரித்தல்
   d.மேற்கண்ட அனைத்தும்

2. இரத்தம் சுத்திகரித்தல் என்றால் என்ன?
   a.அதிகப்படியான நீரையும் கழிவுப்பொருட்களையும் உடலிலிருந்து நீக்குதல்
   b.இரத்தத்திலிருந்து சோடியத்தை நீக்குதல்
   c.நச்சுப்பொருட்களை நீக்குதல்
   d.மேற்கண்ட அனைத்தும்

3. நீங்கள் தாகமாக இருக்கும்போது அதிக தண்ணீர் அருந்துவதை கட்டுப்படுத்த என்னென்ன முறைகளைபின்பற்றுவீர்கள்?

   a.சிறிதளவு தண்ணீர்
   b.மருந்துகள்
   c.ஜீஸ்அருந்துதல்
   d.மேற்கண்ட அனைத்தும்

4. நீங்கள் எப்படி நீர்சமநிலையை அளந்துகொள்வீர்கள்?
   a.எடை பார்த்தல்
   b.நீராகாரம்எடுத்துதல் மற்றும் சிறுநீர் வெளியேறுவதை கணக்கில் கொள்ளுதல்.
   c.வீக்கம் காணுதல்
   d.மேற்கண்ட அனைத்தும்

5. நாம் எப்படி நீராகாரம் எடுப்பதை கணக்கில் கொள்ளலாம்?
   a.முந்தின நாளின் சிறுநீரின் அளவு + 600
   b.நீரை நீக்குதல் - 600
   c.சிறுநீரை சேகரித்தல்
   d.மேற்கண்ட அனைத்தும்

6. இரத்த சுத்திகரிப்பின்போது அதிகப்படியாக எவ்வளவு எடை அதிகரிக்கும்?
   a.1-3கிலோ
   b.2-6 கிலோ
   c.3-6 கிலோ
   d.மேற்கண்ட அனைத்தும்

7. பொதுவாக வீக்கத்தை அறியக்கூடிய பகுதி எது?
    a.கால்கள்
    b.கைகள்
    c.முகம்
    d.மேற்கண்ட அனைத்தும்

8. இரத்த சுத்தகரிப்பின்போது ஏன் அதிக அளவு கலோரி தேவை?
    a.தசையிழைப்பை தவிர்த்தல்
    b.தசைப்பிடிப்பை தவிர்த்தல்
    c.வீக்கத்தை தவிர்த்தல்
    d.மேற்கண்ட அனைத்தும்

9. இரத்த சுத்திகரித்தலில் எந்தவகை உணவுகளை தவிர்க்கவேண்டும்?
    a.சோடியம் / பொட்டாசியம் / பாஸ்பரஸ்
    b. சோடியம் / மெக்னீசியம்
    c. கார்போஹைட்ரேட்
    d.மேற்கண்ட அனைத்தும்

10. அதிகஅளவு சோடியம் உள்ள உணவு எது?
    a. அயோடின் உப்பு
    b. இளநீர்
    c. பால்
    d.மேற்கண்ட அனைத்தும்

11. எந்தவகை உணவு அதிக உயிரியல் புரதம் உள்ளது?
    a. இறைச்சி / முட்டை
    b. அயோடின் உப்பு
    c. பழங்கள்
    d. மேற்கண்ட அனைத்தும்

12. எந்தவகை உணவு பதார்த்தத்தில் அதிகம் சோடியம் மறைந்துள்ளது?
    a. ஊறுகாய் / அப்பளம் / மீன்
    b. இளநீர்
    c. பால்
    d.மேற்கண்ட அனைத்தும்

13. எந்த உணவில் அதிகம் பொட்டாசியம் உள்ளது?
    a. சிட்ரஸ்பழங்கள் / இளநீர்
    b. பால்
    c. இறைச்சி
    d. மேற்கண்ட அனைத்தும்

14. வீட்டில் பிஸ்டுலா பகுதியை எப்படி பராமரிப்பீர்கள்?
    a. பாதிக்கப்பட்ட பகுதியில் கை பகுதியில் தூங்குவதை தவிர்த்தல்
    b. ஆயின்மென்ட் பூசுதல்
    c. இறுக்கமாகக் கட்டுப்போடுதல்
    d. மேற்கண்ட அனைத்தும்

15. பிஸ்டுலா பகுதி சரியாக வேலை செய்கிறதா என்பதை எவ்வாறு கண்டுபிடிப்பீர்கள்?
    a. அதிர்வை கண்டுபிடிப்பதன மூலம்
    b. நாடித்துடிப்பைக்கணக்கெடுத்தல்
    c. எடையை கணக்கிடுதல்
    d. மேற்கண்ட அனைத்தும்

16. பிஸ்டுலா பகுதியில் தொற்றுநோய்க்கான அறிகுறிகள் என்ன?
    a. சிவப்பாதல்,வீங்குதல்
    b. இரத்தஅழுத்தம் குறைதல்
    c. மயக்கம் வருதல் / வாந்தி உணர்வு
    d. மேற்கண்ட அனைத்தும்

17. பிஸ்டுலா பகுதியை பராமரிப்பதன் நோக்கம்?
    a. தொற்றுநோயைத்தவிர்த்தல்
    b. வீக்கத்தைத் தவிர்த்தல்
    c. இரத்தக்கசிவைத் தவிர்த்தல்
    d. மேற்கண்ட அனைத்தும்

18. நீங்கள் சர்க்கரை வியாதியுள்ளவராக இருந்தால் இரத்தம் சுத்திகரிப்பின் முன் என்ன பாதுகாப்பு நடவடிக்கைகள் எடுப்பீர்கள்?

    a. ஓரல் ஹைபோகிளைசிமிக் ஏஜெண்ட் மற்றும் இன்சுலின் ஊசியை தவிர்த்தல்
    b. ஓரல் ஹைபோகிளைசிமிக் ஏஜெண்ட்டை தவிர்த்தல்
    c. இன்சுலின் ஊசியைத் தவிர்த்தல்
    d. மேற்கண்ட அனைத்தும்

19. நீங்கள் இரத்த அழுத்தம் உள்ளவராகயிருந்தால் இரத்தம் அதிகரிப்பின் முன் என்ன பாதுகாப்பு நடவடிக்கையை மேற்கொள்வீர்கள்?

    a. இரத்தசுத்திகரிப்பின் முன் ஆண்டிஹைபர்டென்சிவ் மாத்திரைகளை தவிர்த்தல்.
    b. அதிகப்படியான ஆண்டிஹைபர்டென்விவ் மாத்திரைகளை உட்கொள்ளுதல்.
    c. இரத்தஅழுத்தத்தை சரிபார்த்தல்.
    d. மேற்கண்ட அனைத்தும்

20. இரத்த சுத்திகரிப்பினை செய்யும் நோயாளி எந்த தடுப்பூசியைப் போடவேண்டும்?
    a. ஹெப் ஏ
    b. ஹெப் டி
    c. ஹெப் சி
    d. மேற்கண்ட அனைத்தும்

APPENDIX F

MODIFIED SICKNESS IMPACT PROFILE

The questionnaire booklet lists statements that people have told us describe them when they are not completely well. Whether or not you consider yourself sick, there may be some statements that will stand out because they describe you today and are related to your state of health. As you read the questionnaire, think of yourself today. When you read a statement that you are sure describe you and is related to your health, place a check on the line to the right of the statement.

S. No		Yes	No
	I. Physical		
	I lie down move often during the day in order to rest		
1.	I sleep less at night, for example wake up too early,		
2.	don't fall asleep for a long time, awaken frequently.		
3.	I do not move into or out of bed or chair by myself but am moved by a person or mechanical aid.		
4.	I do not maintain balance.		
5.	I stand up only with someone's help.		
6.	I do not bath myself completely for example, require assistance with bathing.		
7.	I get dressed only with someone's help.		
8.	I stay within one room.		

9.	I am nd now using public transportation.		
10.	I walk shorter distance or stop to rest often.		
11.	I walk up or down stairs only with assistance from some one else.		
12.	I do not walk at all.		
13.	I walk only with help from someone.		
14.	I get around only by using a walker, crutenes, cane,		
15.	walls or furniture.		
16.	I am eating much less than usual.		
17.	I am eating special or different food, for example, soft food, bland diet, low salt, low fat, low sugar.		
18.	I eat no food at all but am taking fluids.		
19.	I feed myself with help from someone else.		
20.	I am drinking less fluids.		
21.	I do work around the house only for short period of time or rest often.		
	I am doing less of the regular daily work around the house than I would usually do.		
	II. PSYCHOSOCIAL		
1.	I say how bad or useless I am, for example, that I am a burden on others.		
2.	I often moan and ground in pain or discomfort.		
3.	I talk about the future in a hopeless way.		
	I am going out less to visit people.		

4. 5.	I often act irritable toward those around me, for example, snap at people, give sharp answer, criticize easily.		
6.	I am avoiding social visits from others.		
7.	I talk less with those around me.		
8.	I stay alone much of the time		
9.	I have frequent out bursts of anger at family members, for example strike at them, scream, throw things at them.		
10.	I isolate myself as much as I can from the rest of the family.		
11.	I am not doing the things I usually do to take care of my children or family.		
12.	I am not joking with family members as I usually do.		
13.	I have difficulty reasoning and solving problem, for example, making plans, making decisions, learning new things.		
14.	I forget a lot, for example things that happened recently where I put things, appointments.		
15.	I make more mistake than usual.		
16.	I communicate mostly by gestures, for example, moving head, pointing, sign language.		
17.	I often lose control of my voice when I talk, for example my voice gets louder or softer, trembles, changes		

	unexpectedly.		
18.	I carry on a conversation only when very close to the other person or looking at him.		
19.	I do my hobbies and recreating for shorter period of time.		
20.	I am cutting down on some of my usual physical recreation or activities.		
	III. WORK		
1.	I am not working at all.		
2.	I am doing part of my job at home.		
3.	I am not accomplishing as much as usual at work.		
4.	I often act irritable toward my work associates, for example, snap at them, given sharp answers, criticize easily.		
5.	I am working shorter hours.		
6.	I am doing only light work.		
7.	I work only for short period of time or take frequent rests.		
8.	I am working at my usual job but with some changes, for example using different tools or special aids, trading some tasks with other workers.		
9.	I do not do my job as carefully and accurately as usual.		

APPENDIX G

சுகவீனத் தாக்கத்தின் விபரங்கள்

வ. எண்.		ஆம் 1	இல்லை 0
	1. உடல்நிலை		
1.	நான் ஓய்வெடுப்பதற்காக பகல் நேரங்களில் அடிக்கடி படுத்திருப்பேன்		
2.	நான் இரவில் குறைவாக தூங்குகிறேன். உதாரணமாக விரைவில் எழுதல், நீண்ட நேரம் தூங்காமலிருத்தல் அல்லது இடையிடையே எழுந்து விடுதல்		
3.	படுக்கையில் படுப்பதோ, எழுவதோ (அ) நாற்காலியில் உட்காருவதோ (அ) எழுவதோ நானாக செய்ய முடிவதில்லை. ஆனால் வேறொரு மனிதர் (அ) உபகரணத்தின் உதவியினால் முடிகிறது.		
4.	என்னால் சீர்நிலையில் இருக்க முடிவதில்லை		
5.	நான் வேறொருவரின் உதவியுடன் எழுகிறேன்.		
6.	என்னால் முழுமையாக குளிக்க முடிவதில்லை. உதாரணமாக குளிப்பதற்கு மற்றவரின் உதவி தேவைப்படுகிறது.		
7.	நான் வேறொருவரின் உதவியுடன் உடை மாற்றுகிறேன்		
8.	நான் ஒரே அறைக்குள்ளேயே இருக்கிறேன்.		
9.	நான் இப்போது பொதுவான போக்குவரத்தை பயன்படுத்துவதில்லை		
10.	நான் குறைந்த தூரமே நடக்கிறேன் (அ) அடிக்கடி ஓய்வெடுக்கிறேன்		
11.	நான் படியில் மேலேற (அ) கீழே இறங்கும் போது மற்றவரின் உதவி தேவைப்படுகிறது		
12.	நான் நடப்பதே இல்லை		
13.	மற்றவரின் உதவியினால் மட்டும் நடக்கிறேன்.		

14.	ஊன்றுகோல் சுவர் (அ) பொருள்களின் உதவியினால் நகர்கிறேன்.		
15.	வழக்கத்தை விட குறைவாக உண்கிறேன்		
16.	நான் குறிப்பிட்ட (அ) வேறுபட்ட உணவு (எ.கா) மென்மையான உணவு, பத்திய உணவு, உப்பு (அ) கொழுப்பு மற்றும் சர்க்கரையை குறைக்கும் உணவினை உண்கிறேன்.		
17.	நான் உணவே உண்பதில்லை. திரவங்களை மட்டும் எடுத்துக் கொள்கிறேன்.		
18.	மற்றவரின் உதவி கொண்டு உணவு உண்கிறேன்		
19.	மிகக் குறைந்த அளவே திரவங்களை எடுத்துக் கொள்கிறேன்		
20.	என்னால் வீட்டில் (அ) வீட்டைச் சுற்றி உள்ள வேலைகளை குறைந்த நேரமே செய்ய முடிகிறது (அ) அடிக்கடி ஓய்வெடுக்கிறேன்.		
21.	என் தினசரி வீட்டு வேலைகளை வழக்கத்தை விட மிகக் குறைந்த அளவே என்னால் செய்ய முடிகிறது		
	2. சமூக மனநிலை		
1.	நான் எவ்வளவு மோசமானவள்(ன்) (அ) பயனில்லாதவள்(ன்) என சொல்கிறேன். (எ.கா) நான் மற்றவர்களுக்கு சுமையாக இருப்பவள்(ன்)		
2.	நான் அடிக்கடி வலி (அ) வேதனையால் முணகுகிறேன் (அ) அணர்த்துகிறேன்		
3.	நான் எதிர்காலத்தை பற்றி நம்பிக்கை இல்லாத விதத்தில் பேசுகிறேன்		
4.	மக்களைப் பார்க்க மிகக்குறைந்த அளவே வெளியில் செல்கிறேன்		
5.	என்னை சுற்றியுள்ளவர்களை குறித்து எரிச்சலடைகிறேன். உதாரணமாக அறைவது, நறுக்கென பதிலளிப்பது (அ) சுலபமாக குறை சொல்வது		
6.	சமூக பங்கேற்பினை தவிர்க்கிறேன்.		

7.	என்னைச் சுற்றி இருப்பவர்களுடன் குறைவாகவே பேசுகிறேன்		
8.	அதிக நேரங்களில் தனியாக இருக்கிறேன்		
9.	நான் அடிக்கடி கோபத்தினை குடும்பத்தினர் மேல் வெளிப்படுத்துகிறேன்		
10.	என் குடும்பத்திலிருந்து முடிந்தவரை என்னை தனிமைப்படுத்திக் கொள்கிறேன்		
11.	என் குழந்தைகள் (அ) குடும்பத்தினரை வழக்கமாக கவனிப்பதை இப்போது செய்வதில்லை		
12.	வழக்கமாக குடும்பத்தினருடன் நகைச்சுவையாக பேசுவது போல் இப்போது செய்வதில்லை		
13.	எனக்கு காரணப்படுத்துதல் மற்றும் பிரச்சனைகளை தீர்ப்பதில் கஷ்டமாக உள்ளது. (எ.கா) திட்டமிடுதல் முடிவெடுத்தல், புதியனவற்றை கற்றுக் கொள்வதில் கஷ்டப்படுகிறேன்.		
14.	அதிகமாக மறந்து பேசுகிறேன், (எ.கா) தற்போது நிகழ்ந்தவை – பொருட்களை வைத்த இடம், நேரம் ஒதுக்கிய விஷயங்கள்		
15.	வழக்கத்தை விட அதிக தவறுகளை செய்கிறேன்		
16.	அதிகமாக உடலசைவினால் பேசுகிறேன் (எ.கா) தலையசைப்பது, சுட்டிக்காட்டுவது, குறிப்புணர்த்தும் மொழி		
17.	நான் பேசும்போது அடிக்கடி குரலின் கட்டுப்பாட்டை இழக்கிறேன் (எ.கா) சத்தம் உயர்தல், குறைதல், நடுங்குதல், அறியாமல் மாறிப்போதல்		
18.	நான் மற்றவர்களுடன் அருகில் இருக்கும் போது (அ) பார்க்கும் போது மட்டுமே என் உரையாடலை துவங்குகிறேன்		
19.	நான் பொழுதுபோக்கு (அ) உற்சாகமூட்டும் செயல்களை மிகக்குறைந்த நேரமே செய்கிறேன்		
20.	எனது சில உடல்சார்ந்த உற்சாகமூட்டும் செயல்களை குறைத்துக் கொள்கிறேன்		

	3.வேலை/ உழைப்பு		
1.	நான் வேலை செய்வதே இல்லை		
2.	என் தொழிலின் பகுதி வேலைகளை வீட்டிலேயே செய்கிறேன்		
3.	வழக்கத்தை போல் என் வேலைகளை முழுமையாக செய்வதில்லை		
4.	என்னுடன் வேலை செய்பவர்களிடம் அடிக்கடி எரிச்சலடைகிறேன்		
5.	குறைந்த மணிநேரங்களை வேலை செய்கிறேன்		
6.	எளிதான வேலைகளை மட்டுமே செய்கிறேன்		
7.	குறைந்த நேரமே வேலை செய்கிறேன் (அ) அடிக்கடி ஓய்வு எடுக்கிறேன்		
8.	என் வழக்கமான வேலைகளை சில மாற்றங்களுடன் செய்கிறேன். (எ.கா) வேறு வகையான உபகரணங்கள், குறிப்பிட்ட பொருட்கள் (அ) சில வேலைகளை உடன் வேலை செய்பவர்களுடன் பகிர்ந்து கொள்ளுதல்		
9.	வழக்கத்தை போல என் வேலைகளை கவனத்துடனோ சரியாகவோ செய்வதில்லை		